

HALLIBURTON

ARRAY COMPENSATED TRUE RESISTIVITY LOG

COMPANY		HARTMAN OIL CO.	
WELL		WILLIAMS TRUST 1-19	
FIELD/BLOCK		WILDCAT	
COUNTY		NORTON	
STATE		KANSAS	
Permanent Datum		GL	
Log measured from		KB	
Drilling measured from		KB	
Date		18-Jul-13	
Run No.		ONE	
Depth - Driller		3900.00 ft	
Depth - Logger		3896.0 ft	
Bottom - Logged Interval		3886.0 ft	
Top - Logged Interval		332.0 ft	
Casing - Driller		8.625 in @ 332.0 ft	
Casing - Logger		332.0 ft	
Bit Size		7.875 in @	
Type Fluid in Hole		WATER BASED MUD	
Density		9.1 ppg 57.00 s/qt	
PH		11.00 pH 5.4 cp/m	
Source of Sample		MUD PIT	
Rm @ Meas. Temperature		2.000 ohmm @ 75.00 degF @	
Rmf @ Meas. Temperature		1.40 ohmm @ 75.00 degF @	
Rmc @ Meas. Temperature		2.650 ohmm @ 75.00 degF @	
Source Rmf		MEASURED	
Rm @ BHT		2.04 ohmm @ 75.0 degF @	
Time Since Circulation		5.0 hr	
Time on Bottom		18-Jul-13 22:47	
Max. Rec. Temperature		126.0 degF @ 3896.0 ft @	
Equipment		11230668 LIBERAL	
Recorded By		J. BOLLOW	
Witnessed By		K. NOAH	

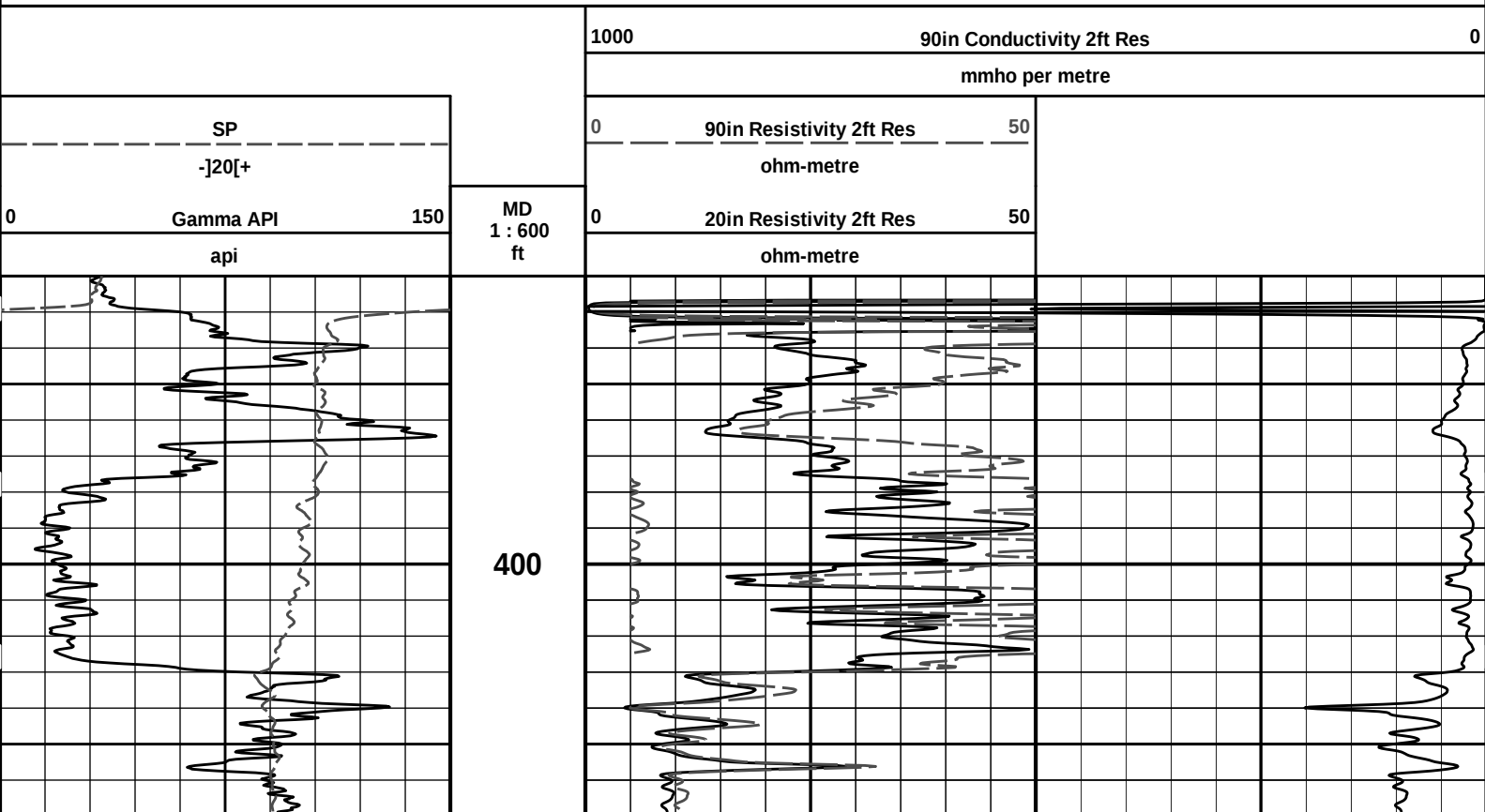
COMPANY	HARTMAN OIL CO.
WELL	WILLIAMS TRUST 1-19
FIELD/BLOCK	WILDCAT
COUNTY	NORTON
STATE	KANSAS
API No.	15-137-20632
Location	(SHL) 1920' & 1832' FEL
Other Services:	MICROLOG DSNT, SDLT BSAT

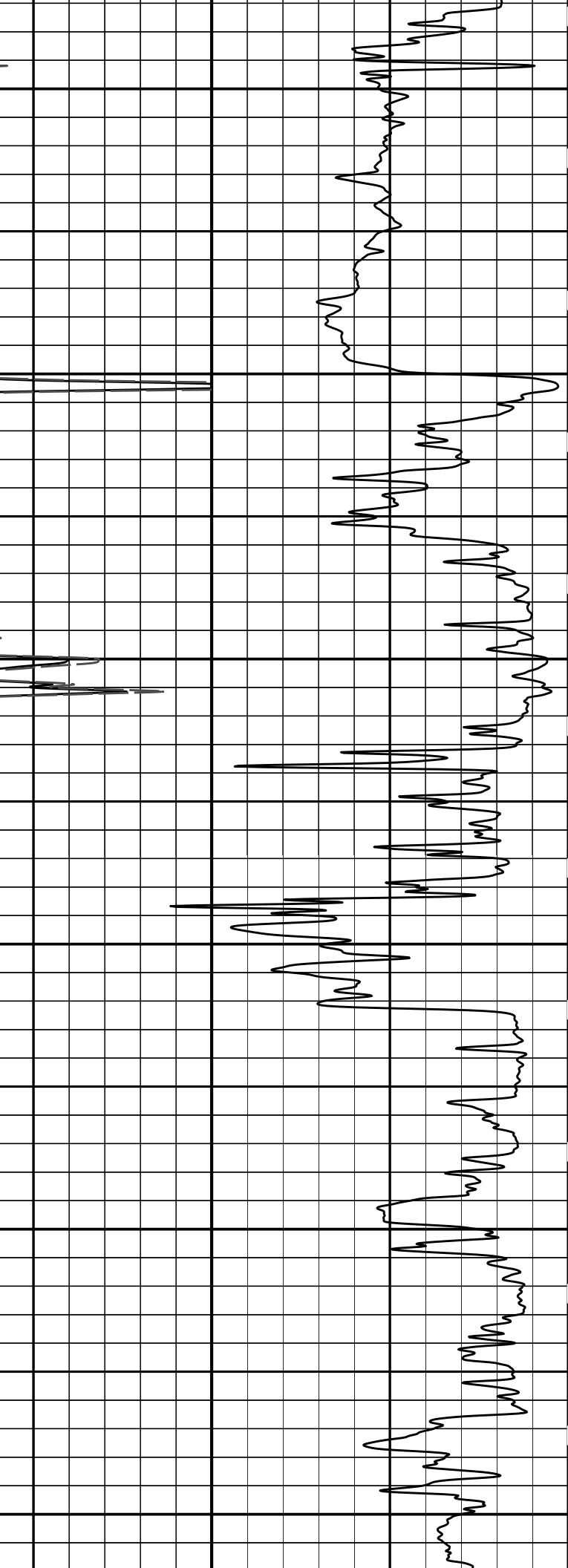
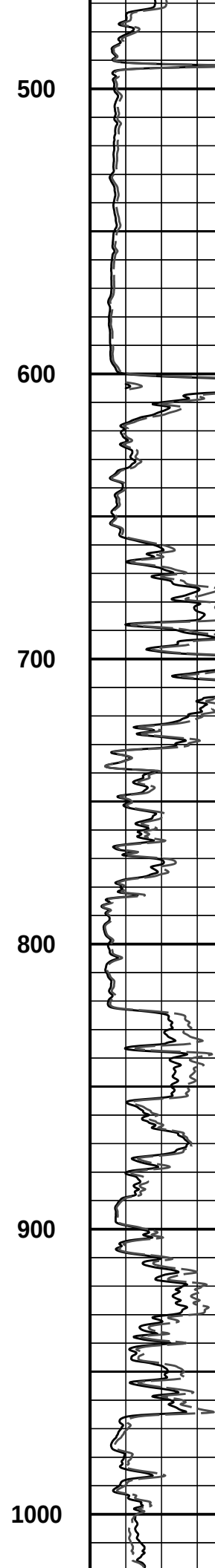
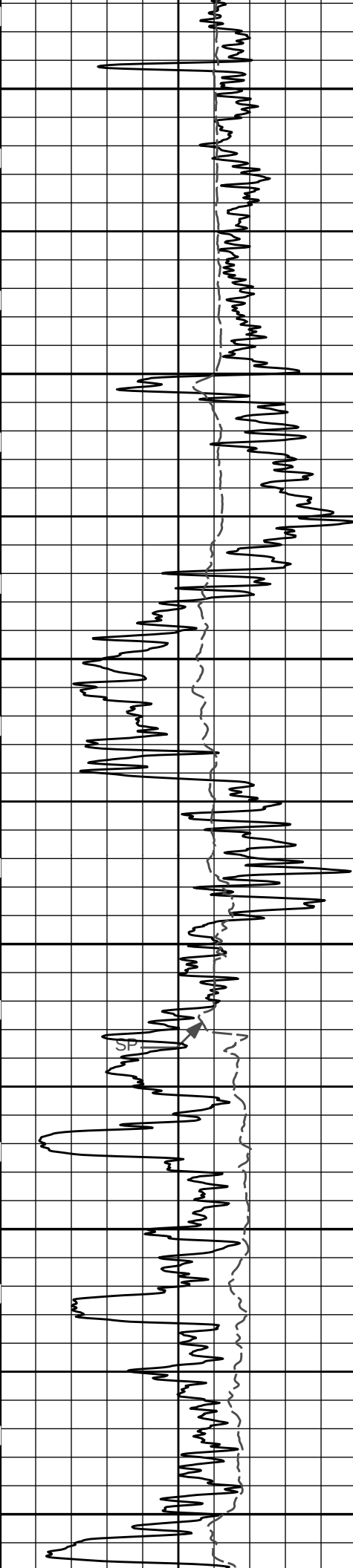
Sect.	19	Twp.	5S	Rge.	22W	Elev.: K.B.	2290.0 ft
						D.F.	2289.0 ft
						G.L.	2279.0 ft

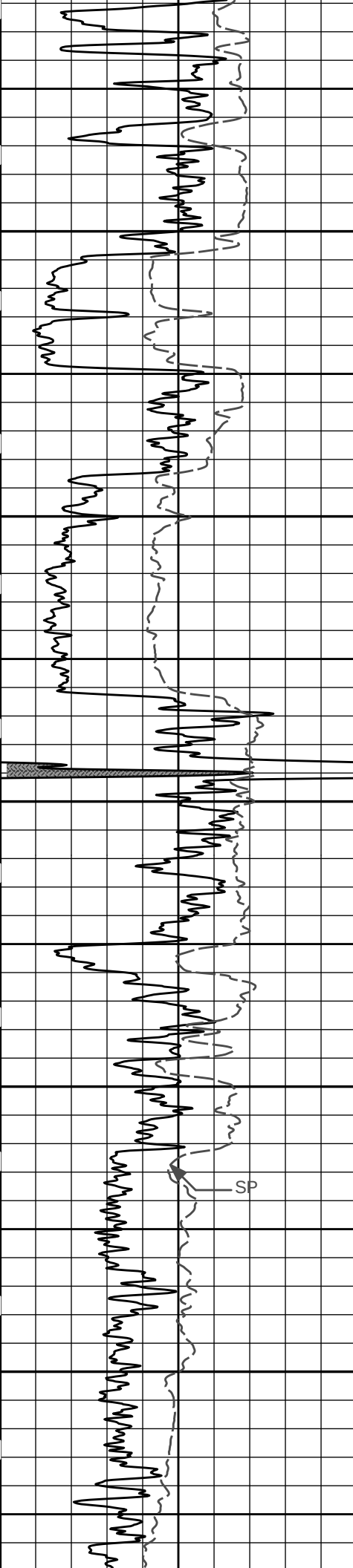
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Service Ticket No.: 900601060				API Serial No.: 15-137-20632				PGM Version: WL INSITE R3.8.4 (Build 5)							
CHANGE IN MUD TYPE OR ADDITIONAL SAMPLE						RESISTIVITY SCALE CHANGES									
Date		Sample No.				Type Log		Depth		Scale Up Hole		Scale Down Hole			
Depth-Driller															
Type Fluid in Hole															
Density		Viscosity													
Ph		Fluid Loss													
Source of Sample						RESISTIVITY EQUIPMENT DATA									
Rm @ Meas. Temp		@		@		Run No.		Tool Type & No.		Pad Type		Tool Pos.		Other	
Rmf @ Meas. Temp.		@		@		ONE		ACRT		N/A		CENT		N/A	
Rmc @ Meas. Temp.		@		@				1776_S775							
Source Rmf		Rmc													
Rm @ BHT		@		@											
Rmf @ BHT		@		@											
Rmc @ BHT		@		@											
EQUIPMENT DATA															
GAMMA				ACOUSTIC				DENSITY				NEUTRON			
Run No.		ONE		Run No.				Run No.				Run No.			
Serial No.		10811258		Serial No.				Serial No.				Serial No.			
Model No.		GTET		Model No.				Model No.				Model No.			
Diameter		3.625"		No. of Cent.				Diameter				Diameter			
Detector Model No.		T-102		Spacing				Log Type				Log Type			
Type		SCINT						Source Type				Source Type			
Length		8'		LSA [Y/N]				Serial No.				Serial No.			
Distance to Source		10'		FWDA [Y/N]				Strength				Strength			
LOGGING DATA															

GENERAL				GAMMA		ACOUSTIC			DENSITY			NEUTRON		
Run	Depth		Speed	Scale		Scale		Matrix	Scale		Matrix	Scale		Matrix
No.	From	To	ft/min	L	R	L	R		L	R		L	R	
ONE	3896	332	REC	0	150									
DIRECTIONAL INFORMATION														
Maximum Deviation @								KOP @						
Remarks: ANNULAR HOLE VOLUME CALCULATED FOR 5.5-INCH CASING														
CHLORIDE REPORTED AT 700 PM														
LCM REPORTED AT 2 LB/BBL														
TODAY'S CREW: B. TERRELL & K. KING														
THANK YOU FOR CHOOSING HALLIBURTON ENERGY SERVICES LIBERAL, KS. 620-624-8123														
HALLIBURTON DOES NOT GUARANTEE THE ACCURACY OF ANY INTERPRETATION OF THE LOG DATA, CONVERSION OF LOG DATA TO PHYSICAL ROCK PARAMETERS OR RECOMMENDATIONS WHICH MAY BE GIVEN BY HALLIBURTON PERSONNEL OR WHICH APPEAR ON THE LOG OR IN ANY OTHER FORM. ANY USER OF SUCH DATA, INTERPRETATIONS, CONVERSIONS, OR RECOMMENDATIONS AGREES THAT HALLIBURTON IS NOT RESPONSIBLE EXCEPT WHERE DUE TO GROSS NEGLIGENCE OR WILLFUL MISCONDUCT, FOR ANY LOSS, DAMAGES, OR EXPENSES RESULTING FROM THE USE THEREOF.														
HALLIBURTON														







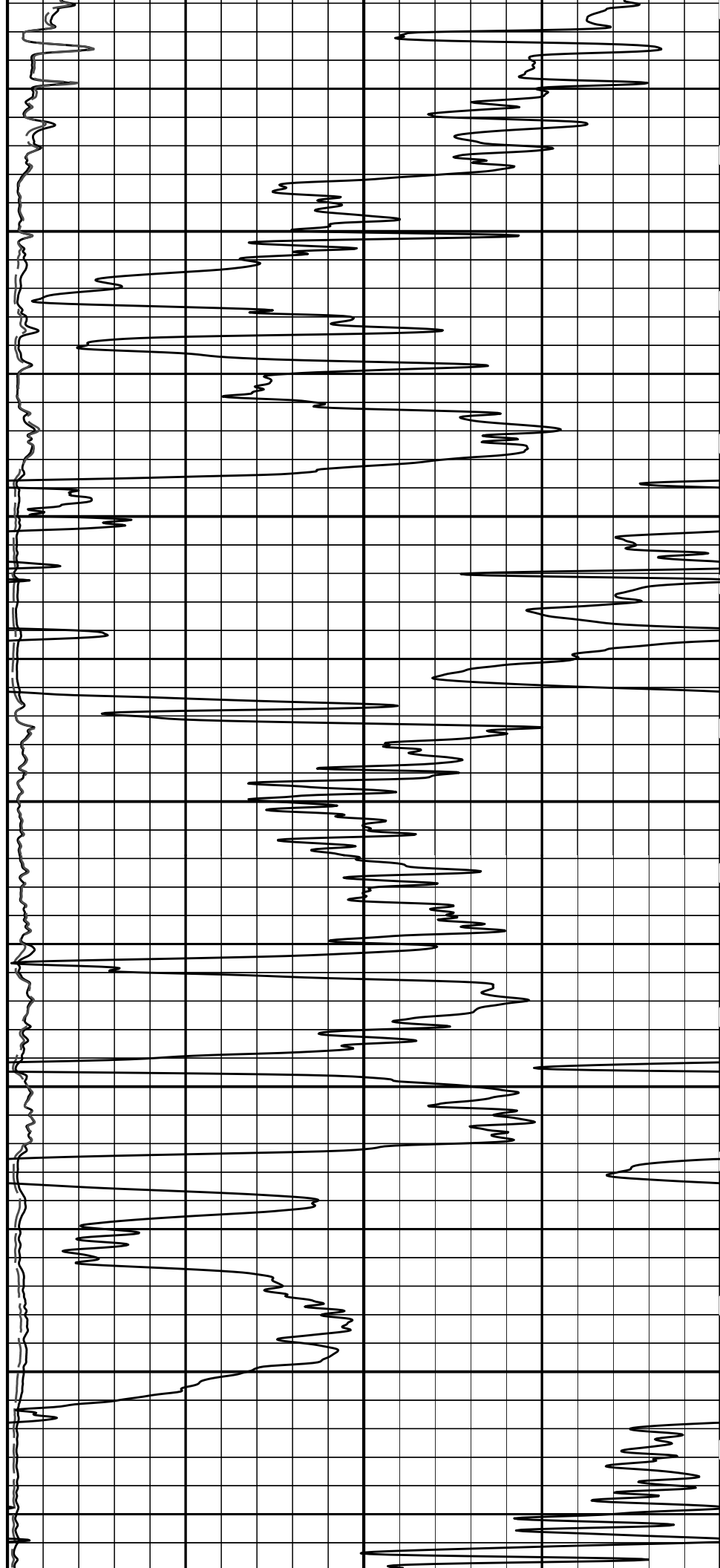
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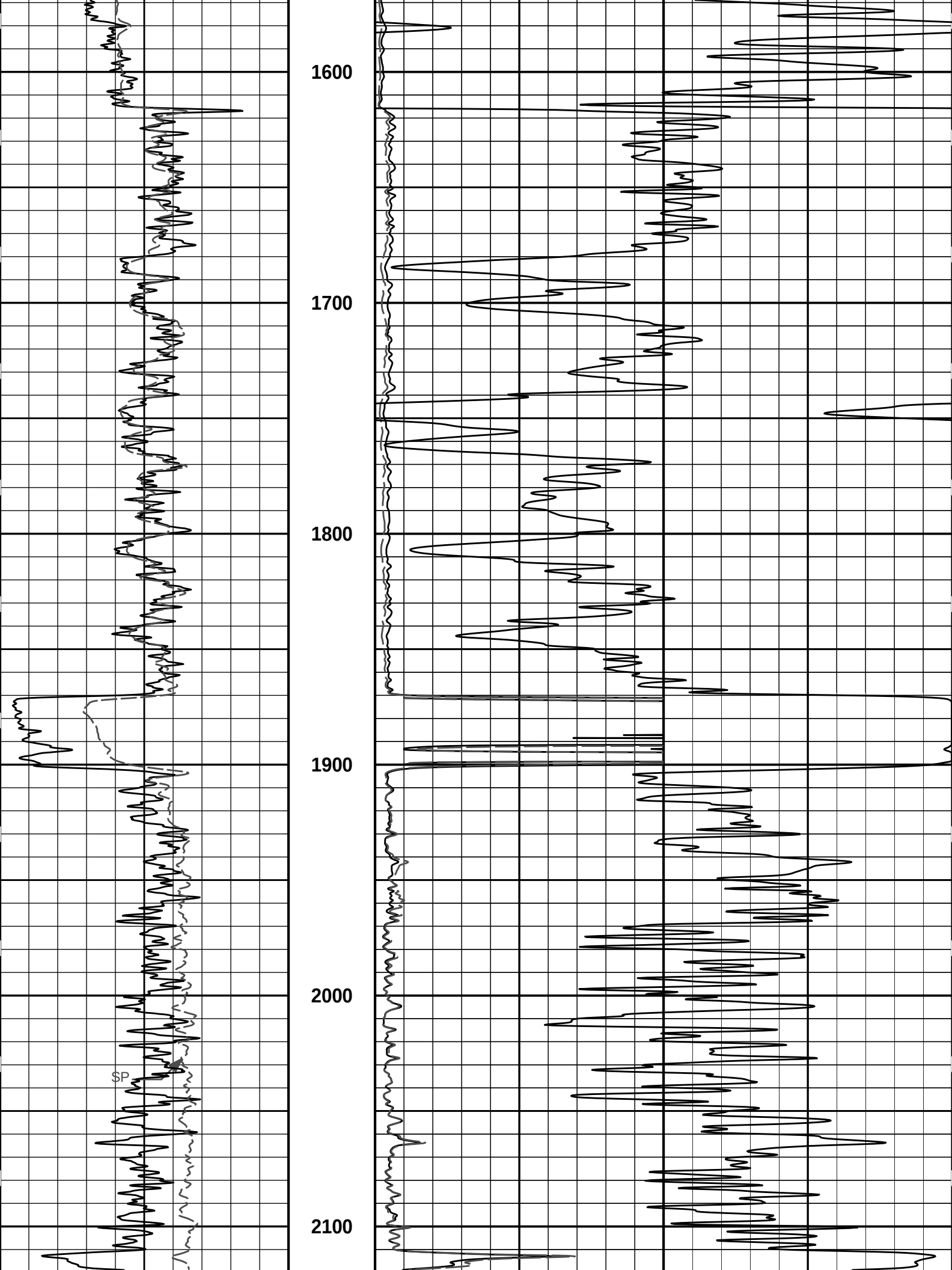
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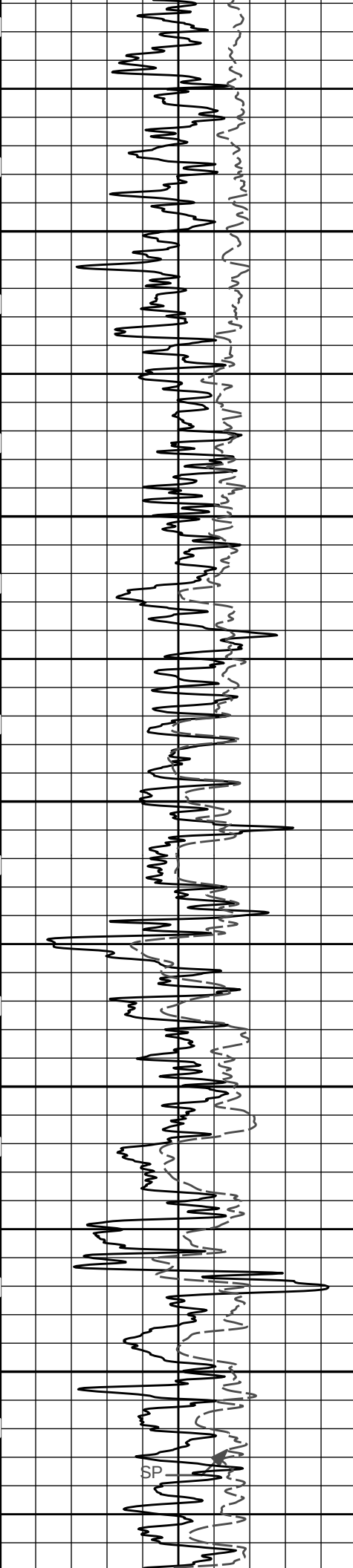
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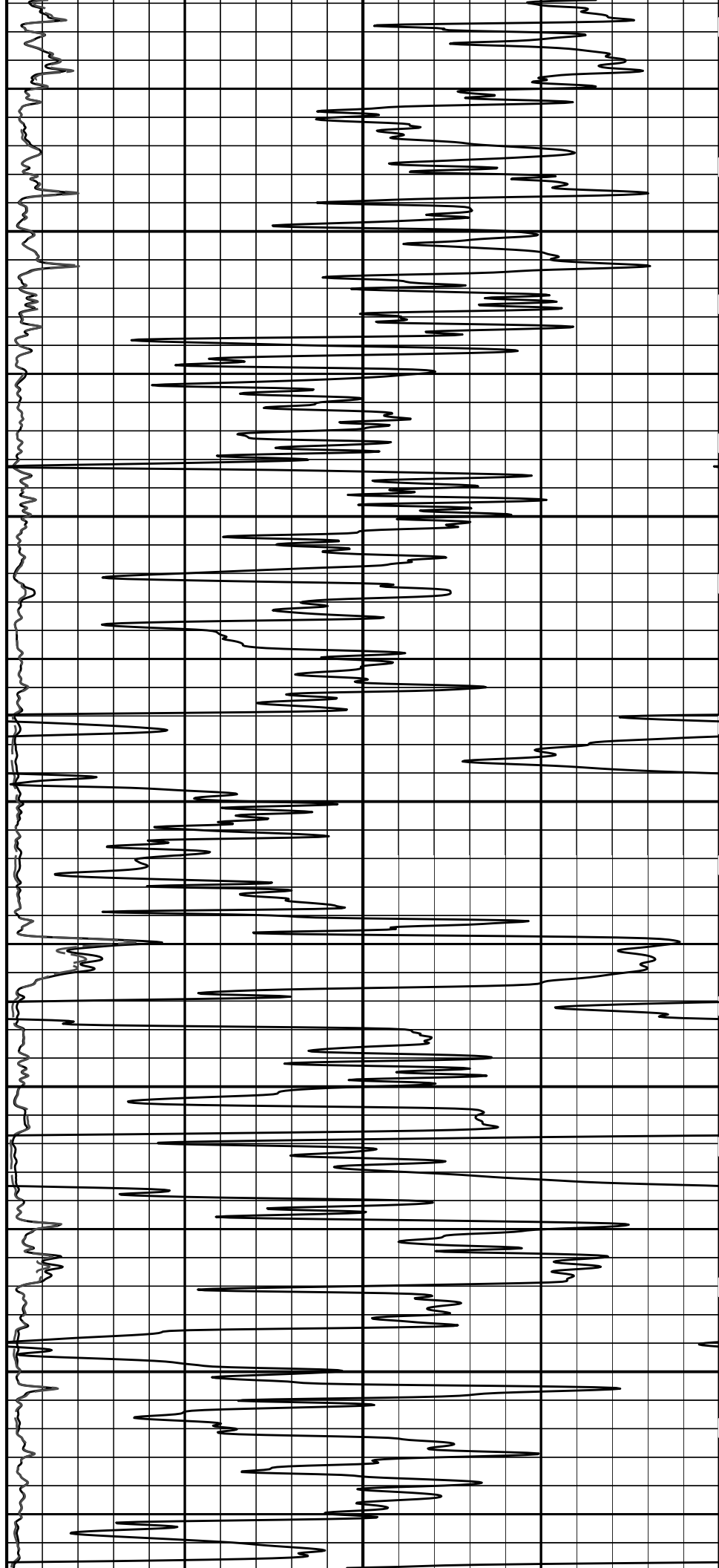
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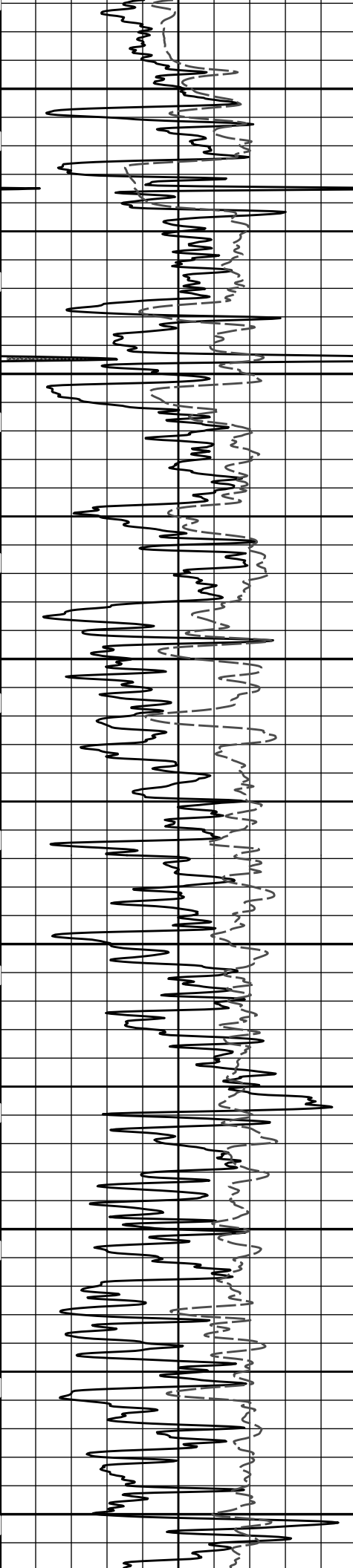
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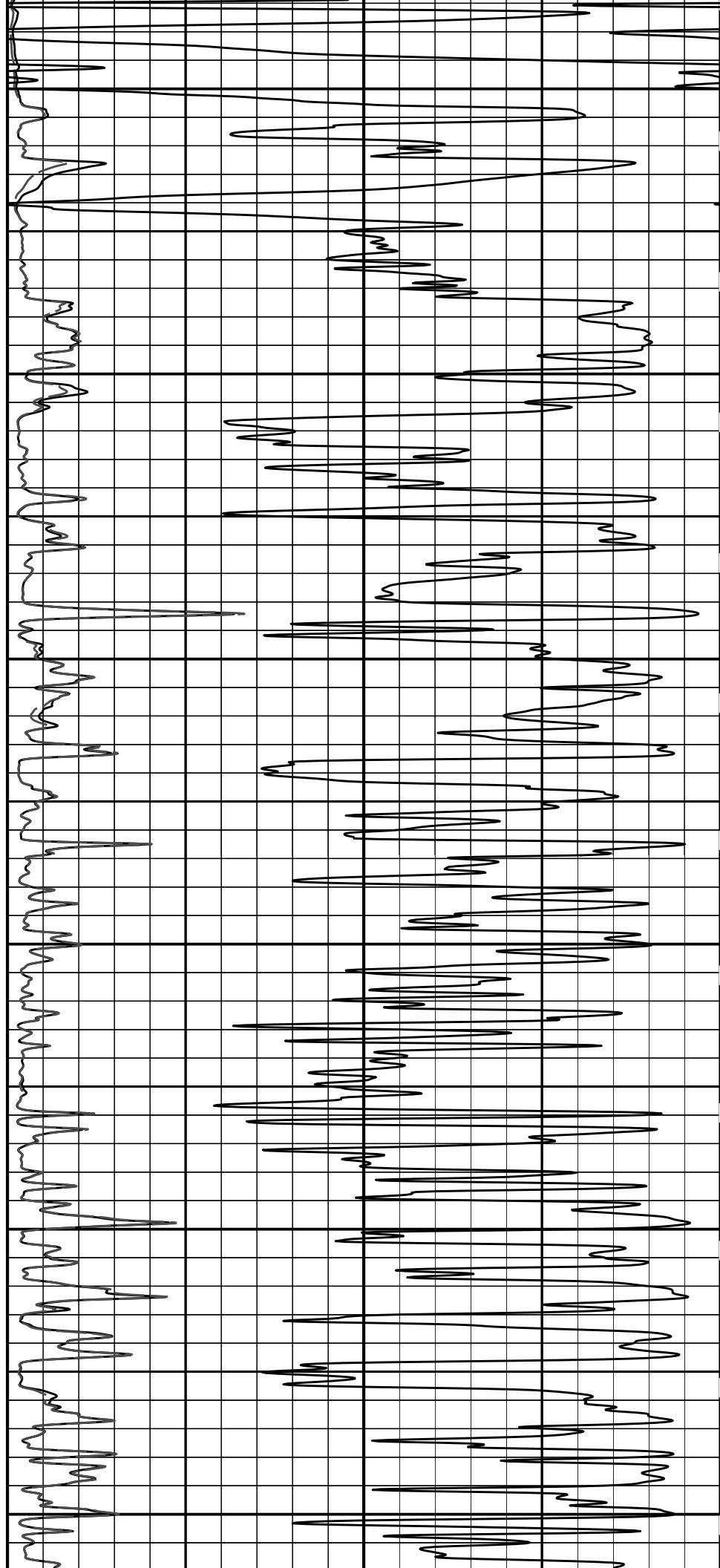
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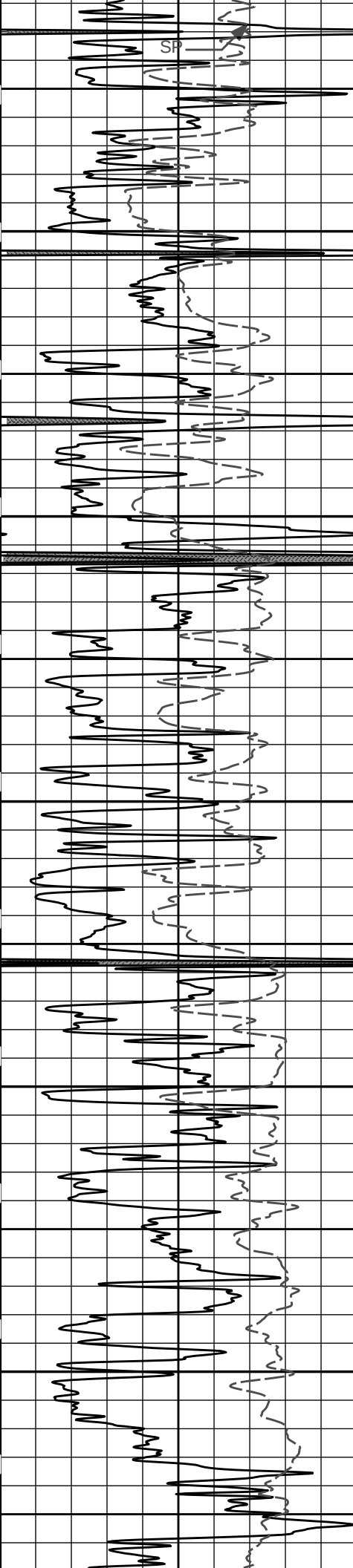
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3100

3200





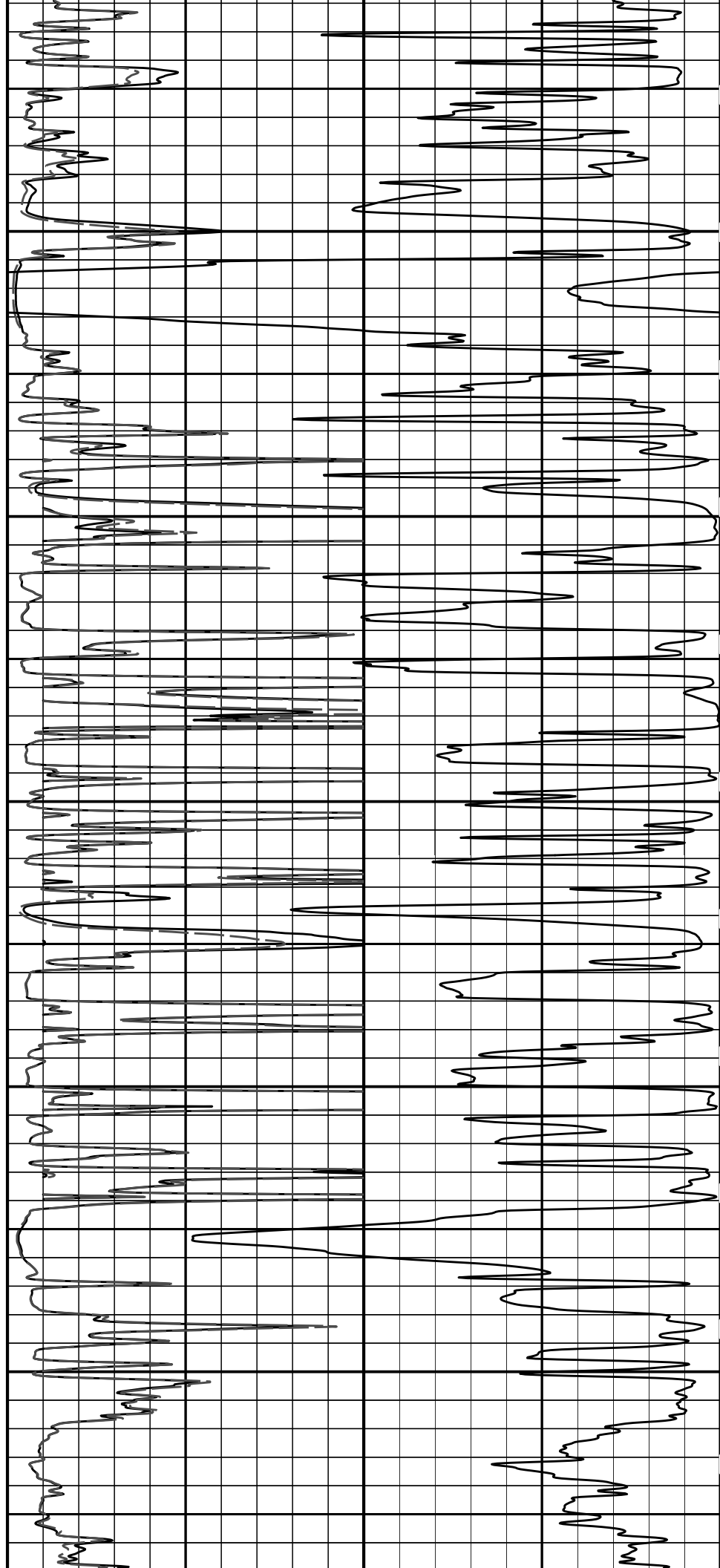
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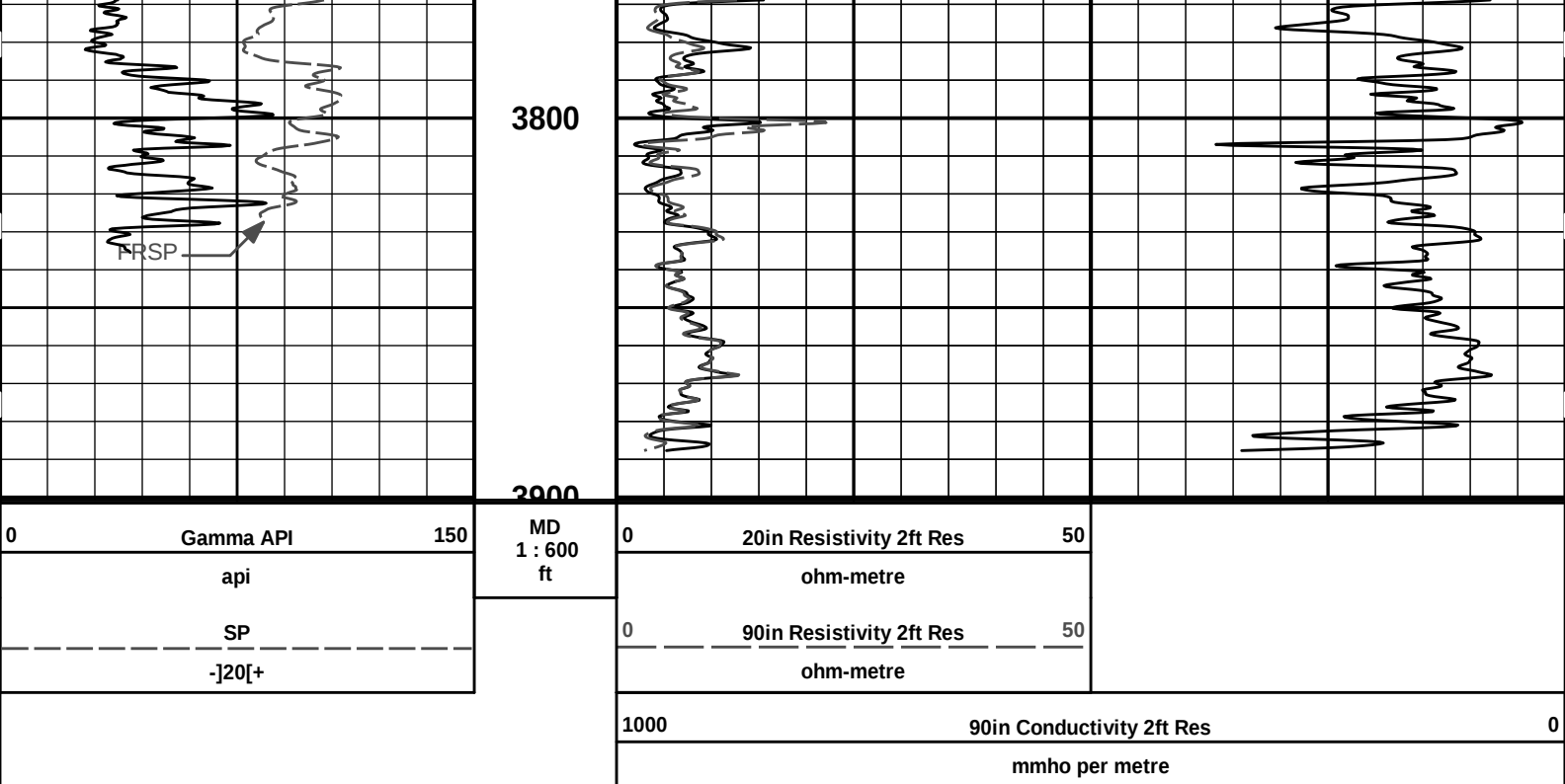
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3700





HALLIBURTON

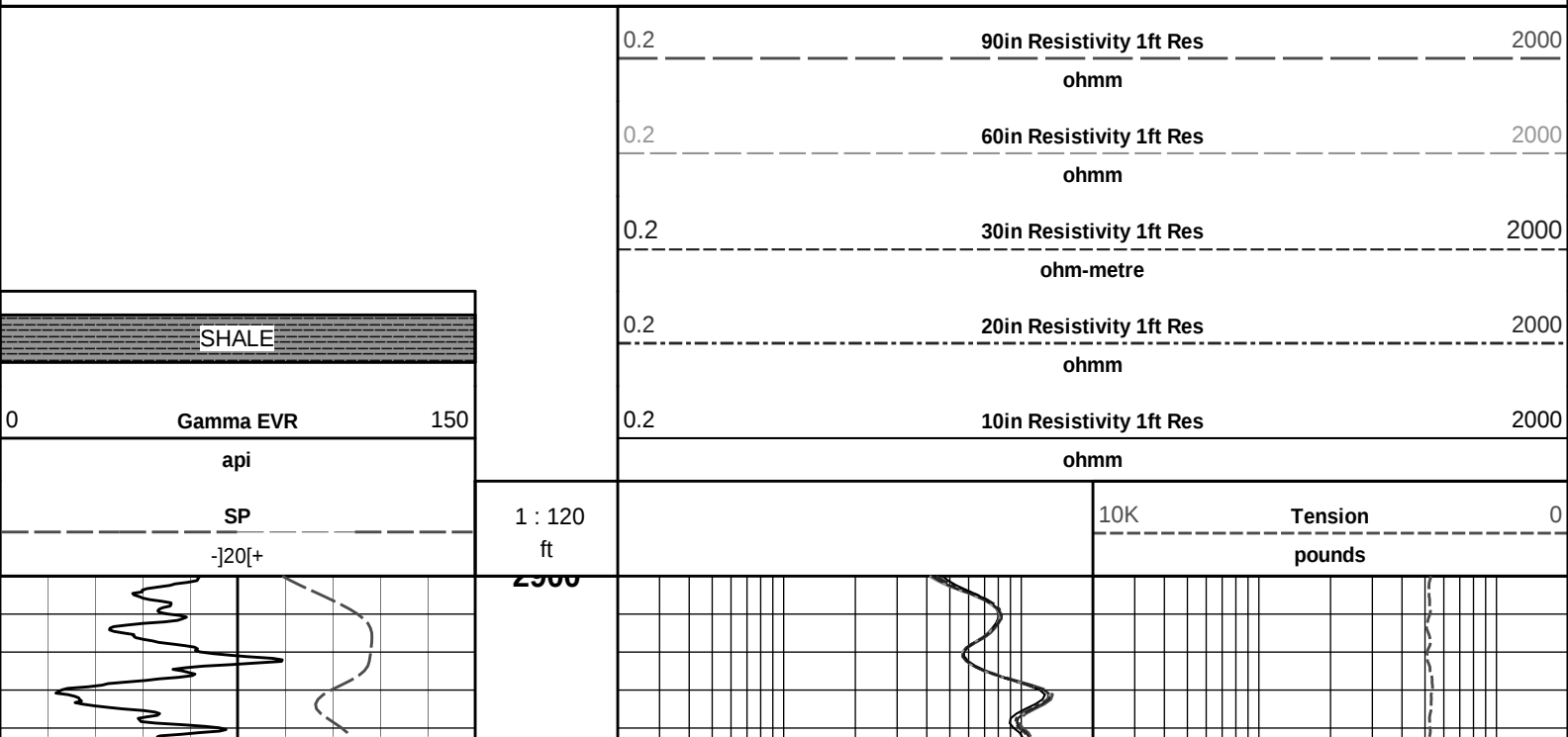
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Data: WILLIAM_TRUST\Well Based\CASING\
Plot File: \\-LOCAL-WILLIAM_TRUST\0001 SP-GTET-DSN-SDL-FLEX-BSAT-ACRT-CHI\ACRT\ACRT_2_lib

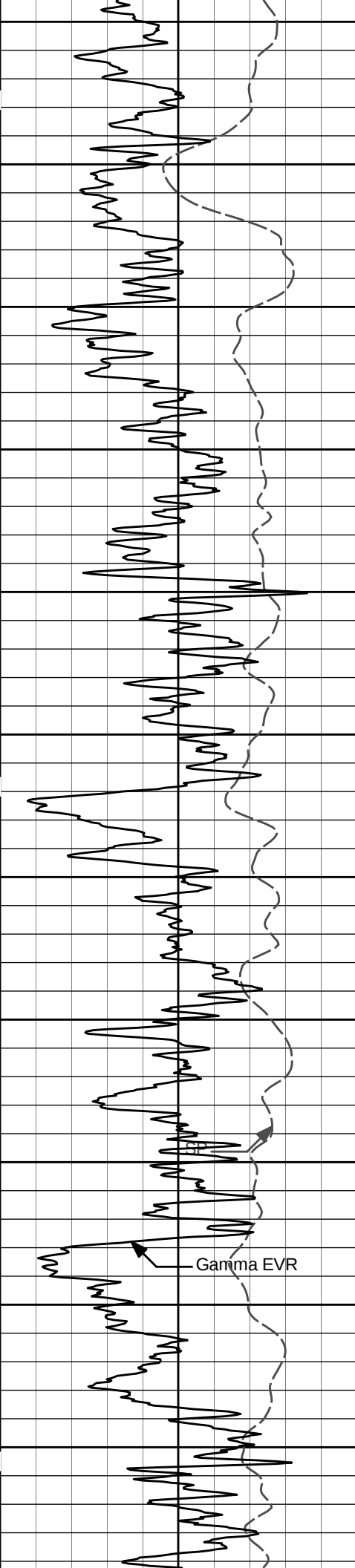
2 INCH MAIN LOG

HALLIBURTON

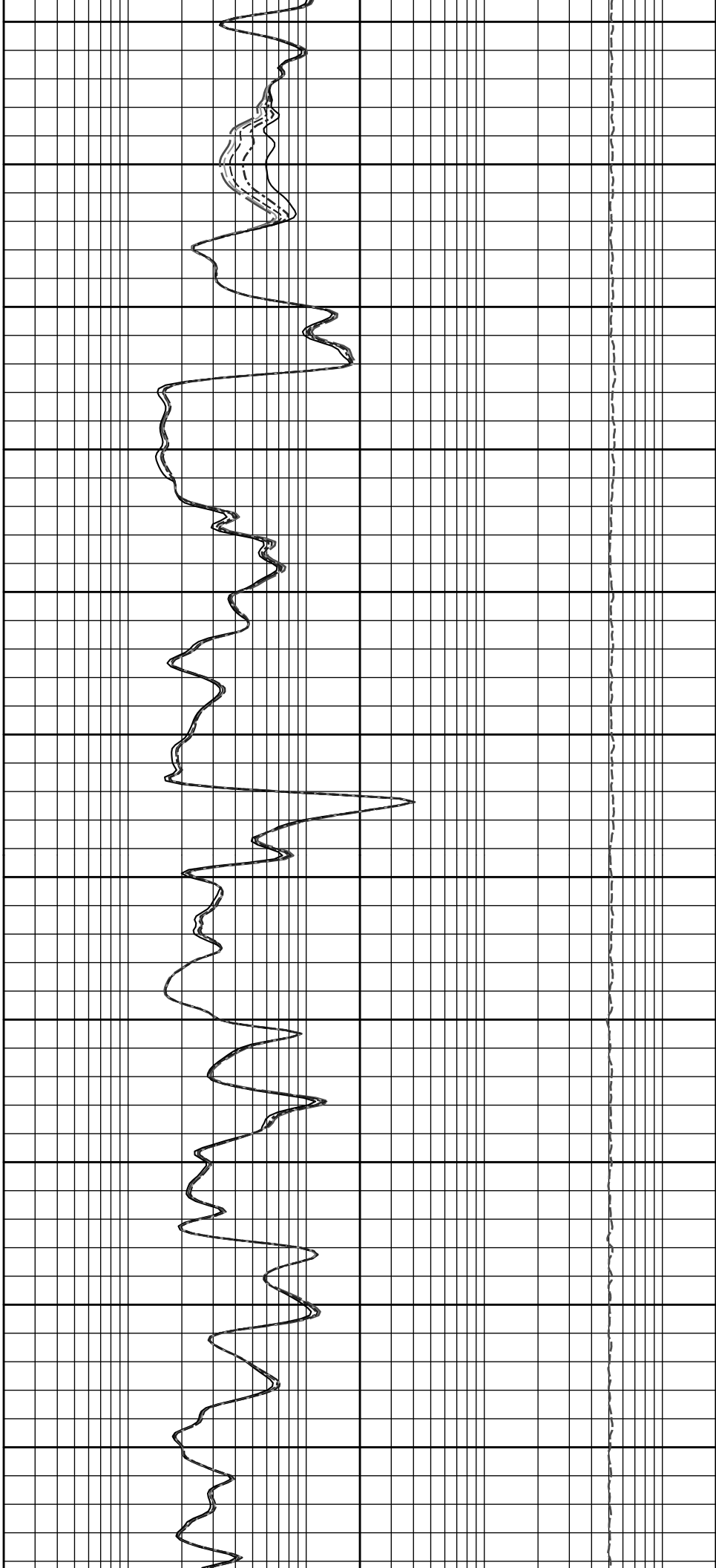
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Plot Range: 2900 ft to 3900.75 ft
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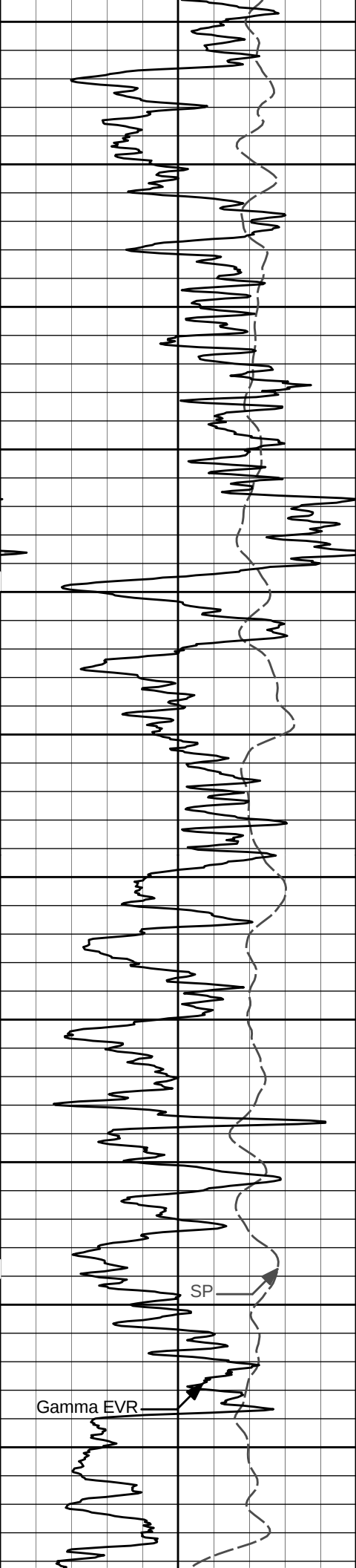
MAIN SECTION 10" PER 100'



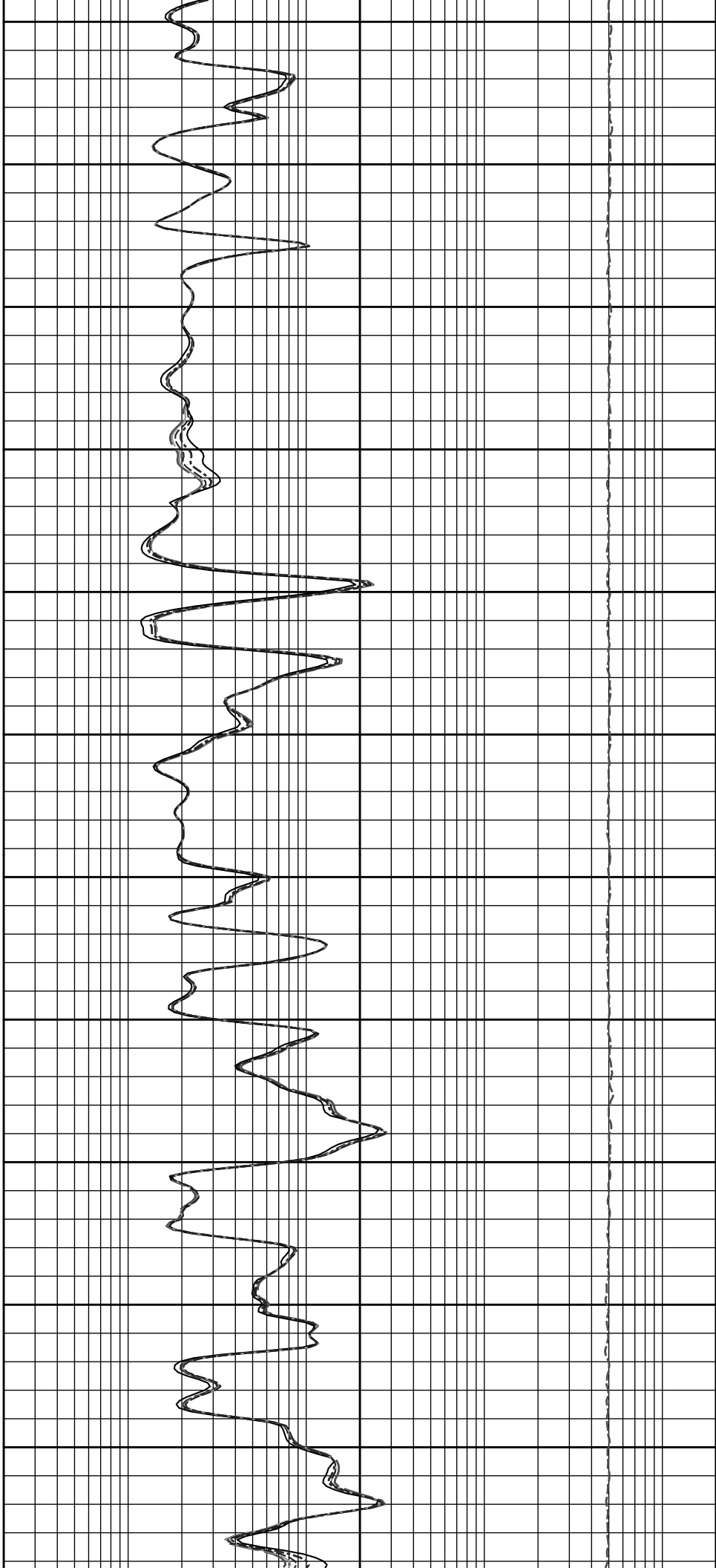


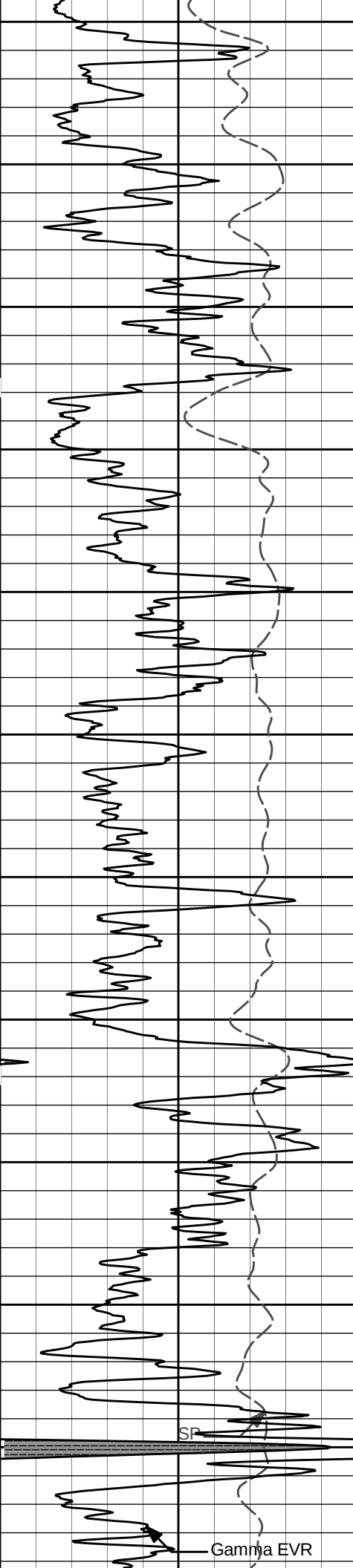
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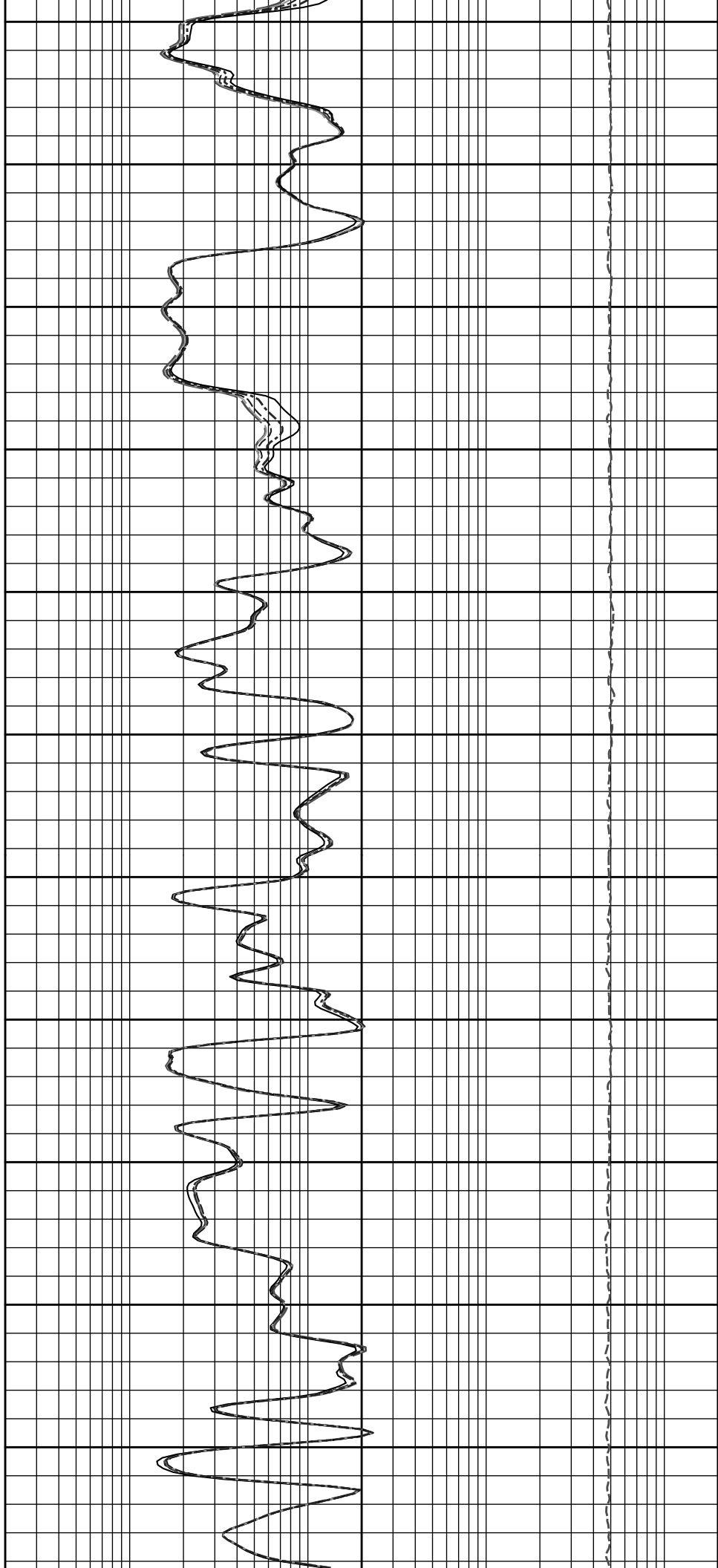


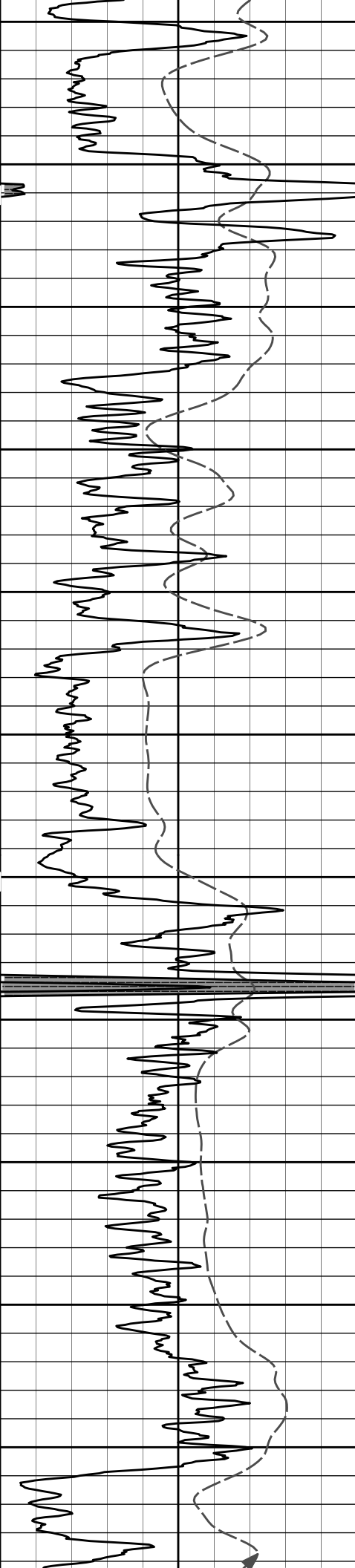
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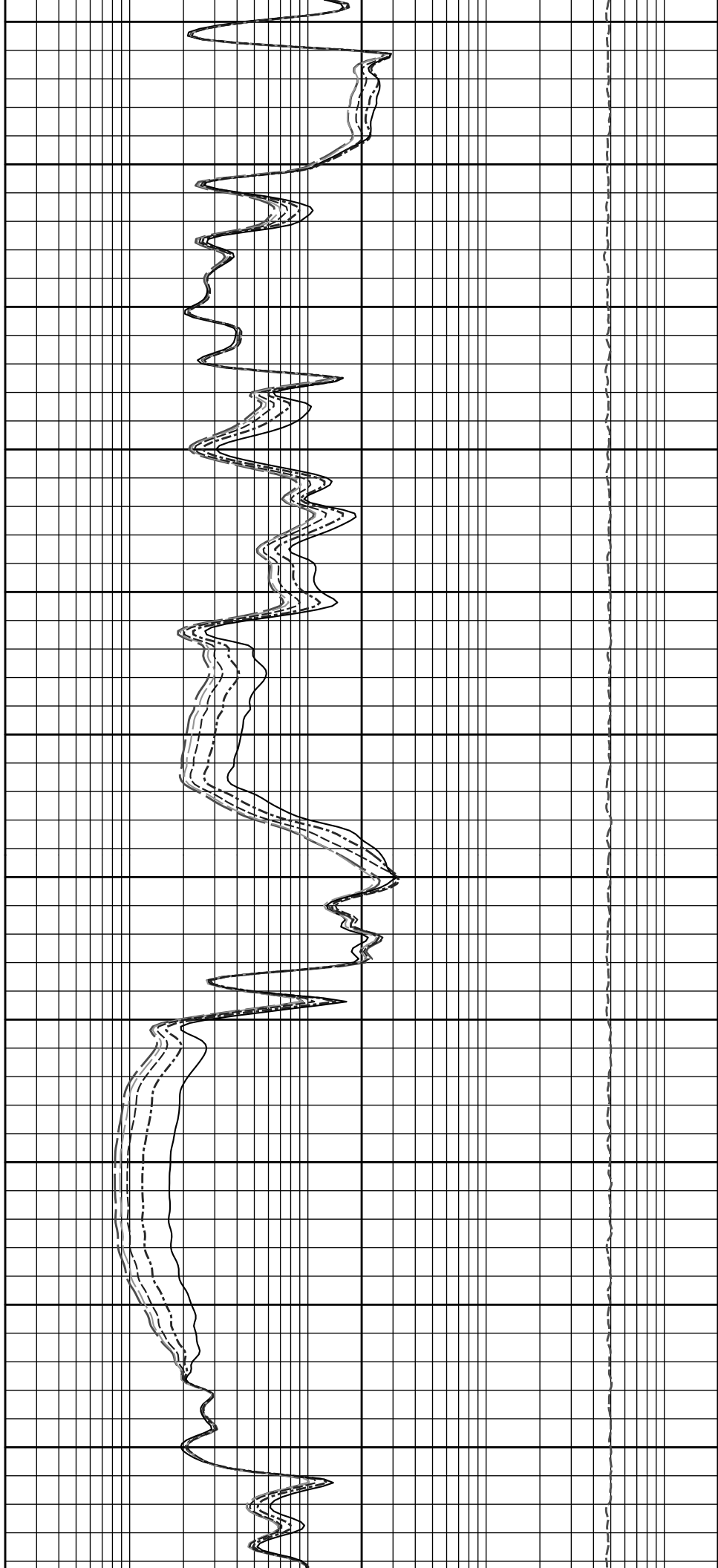


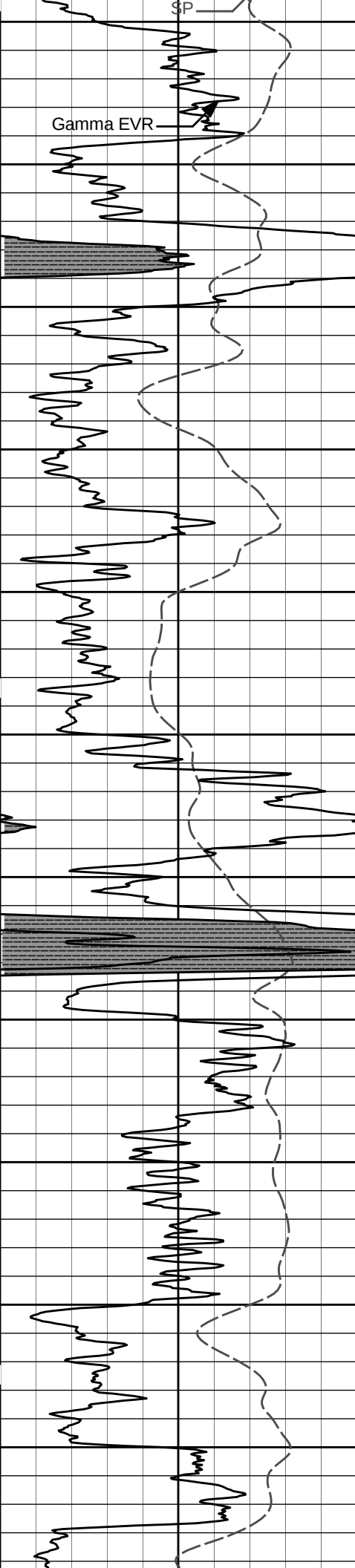
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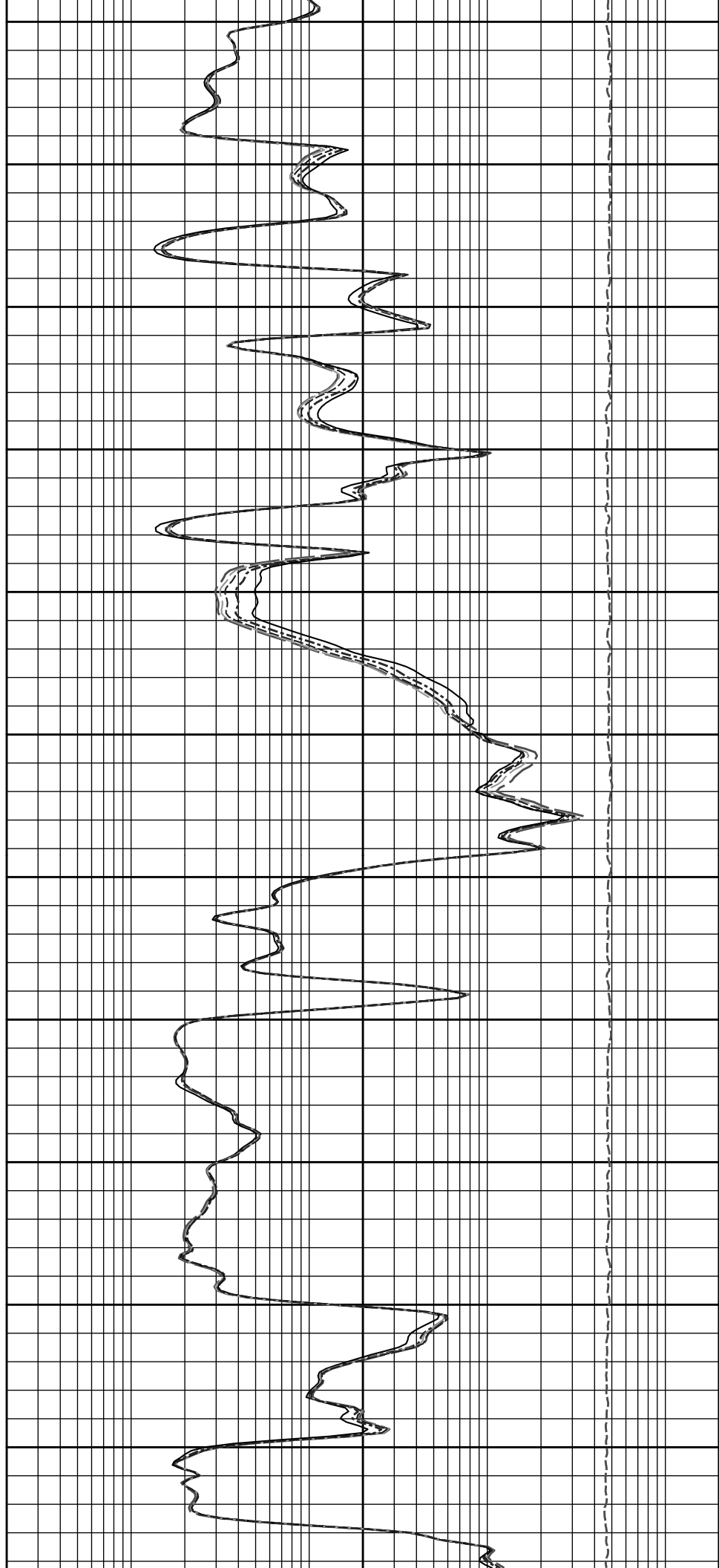


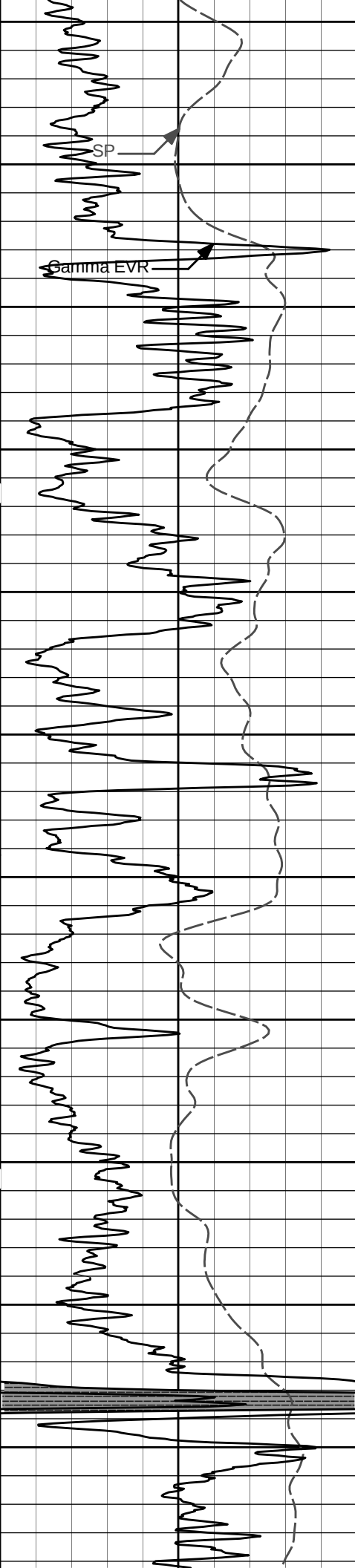
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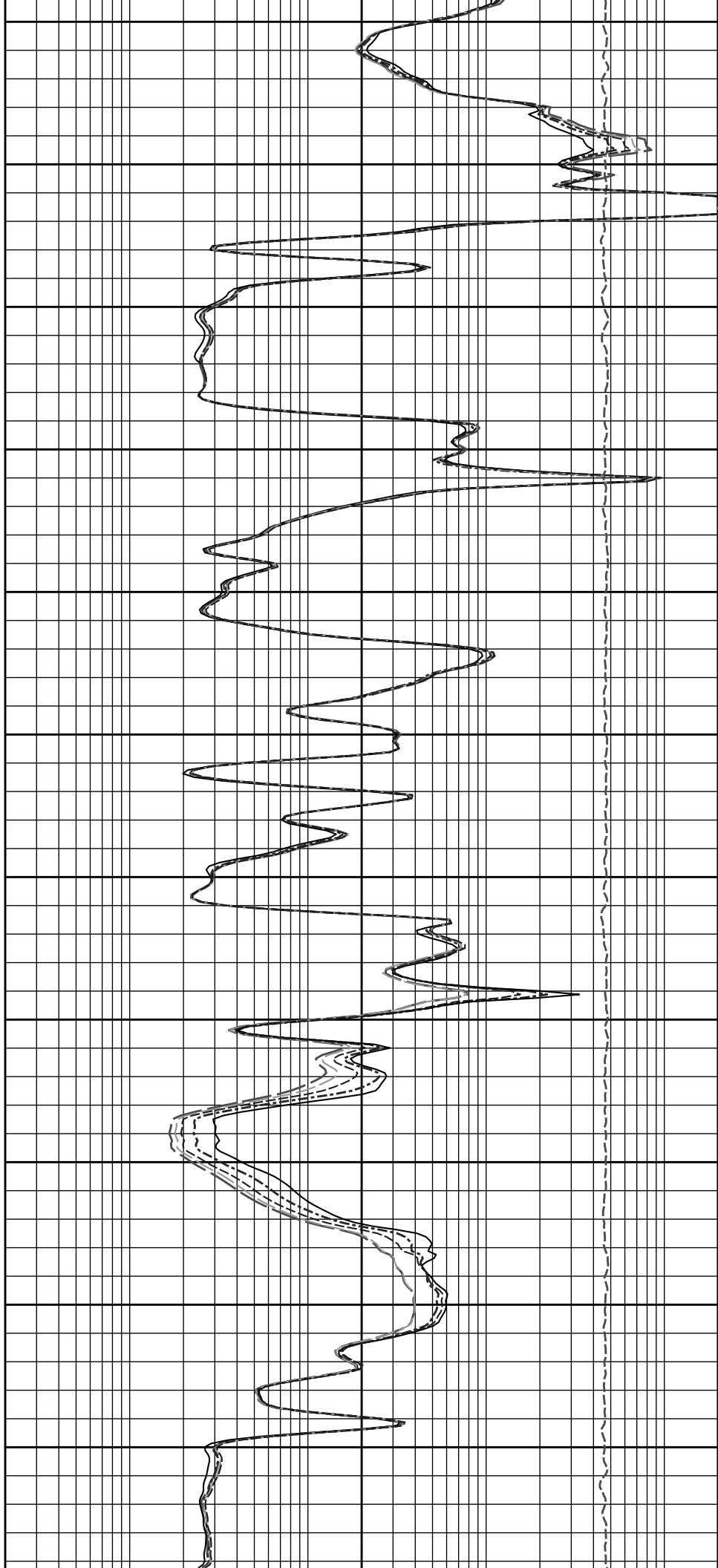


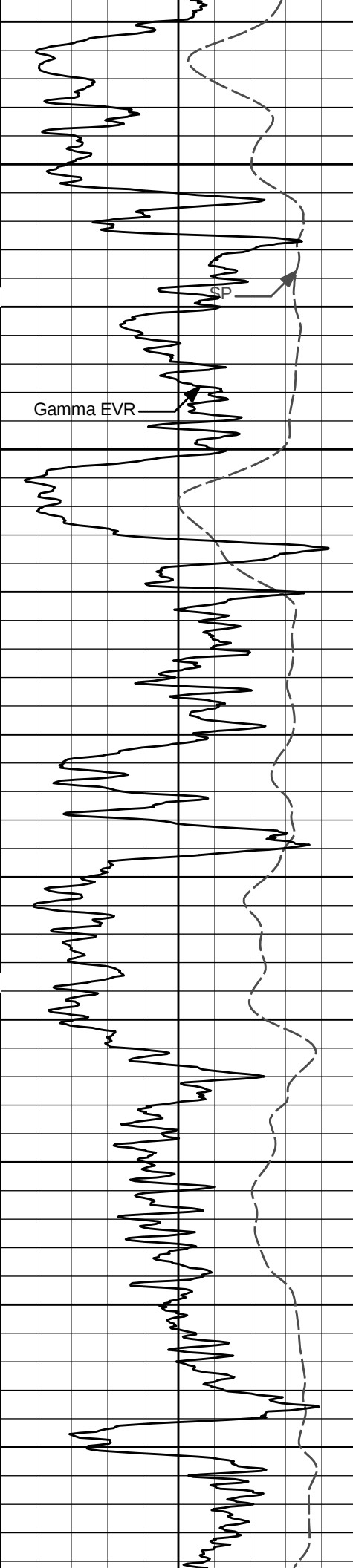
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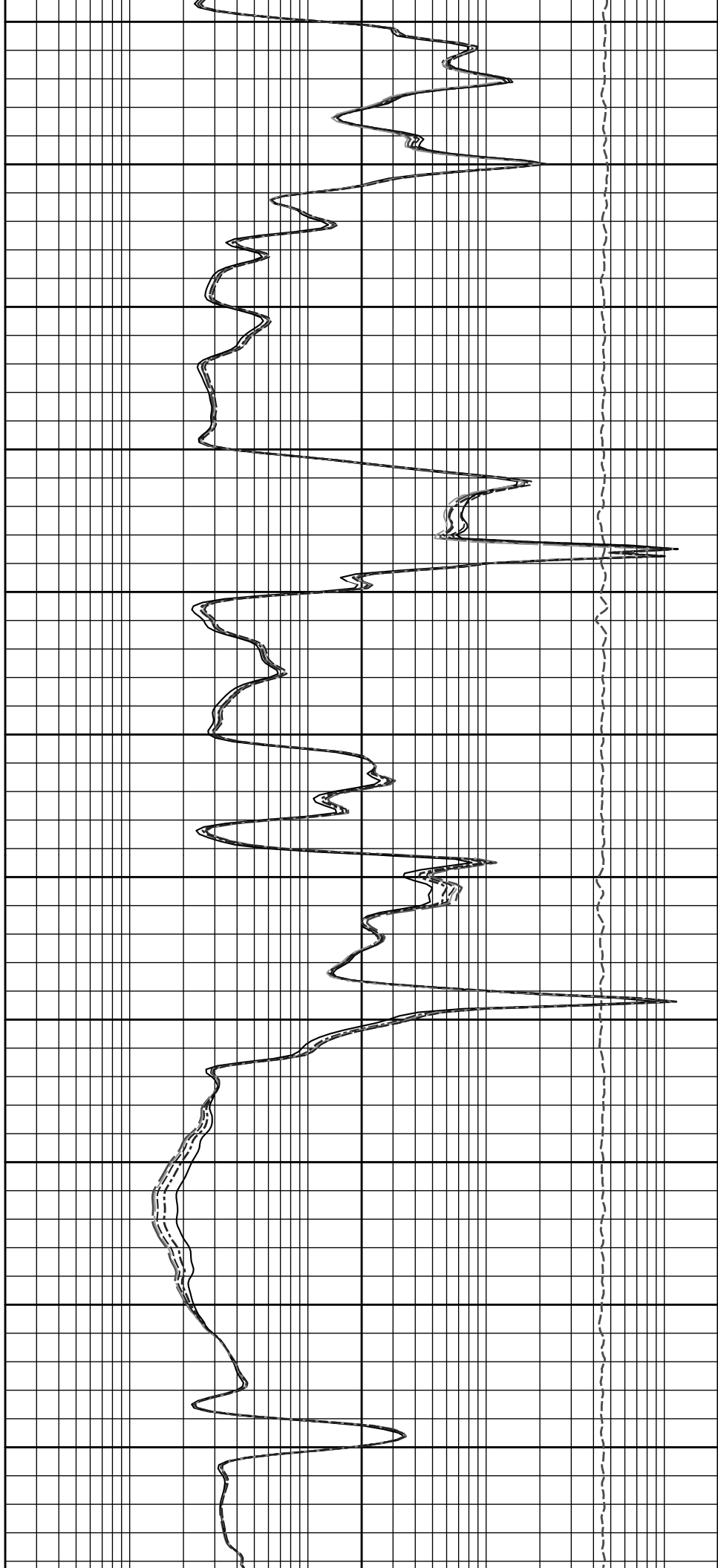


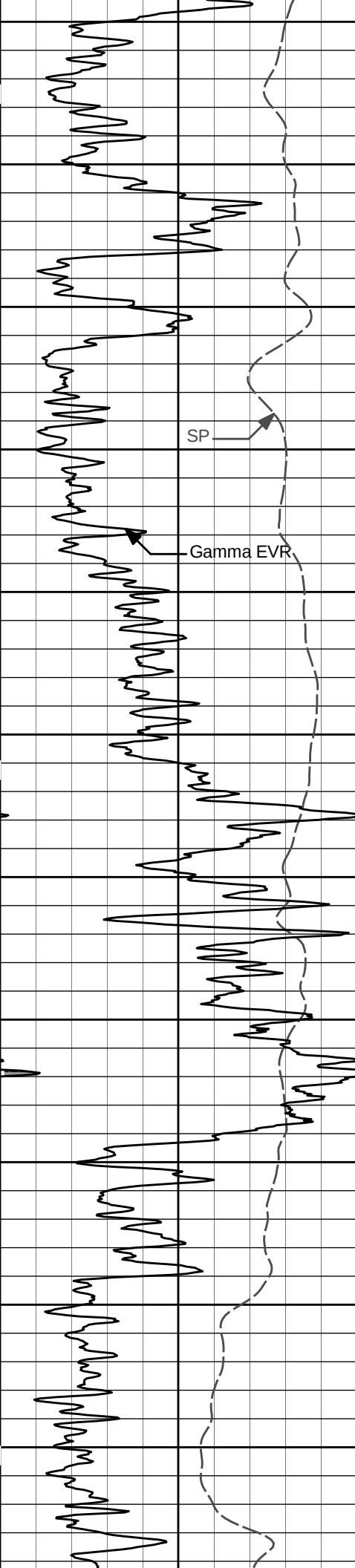
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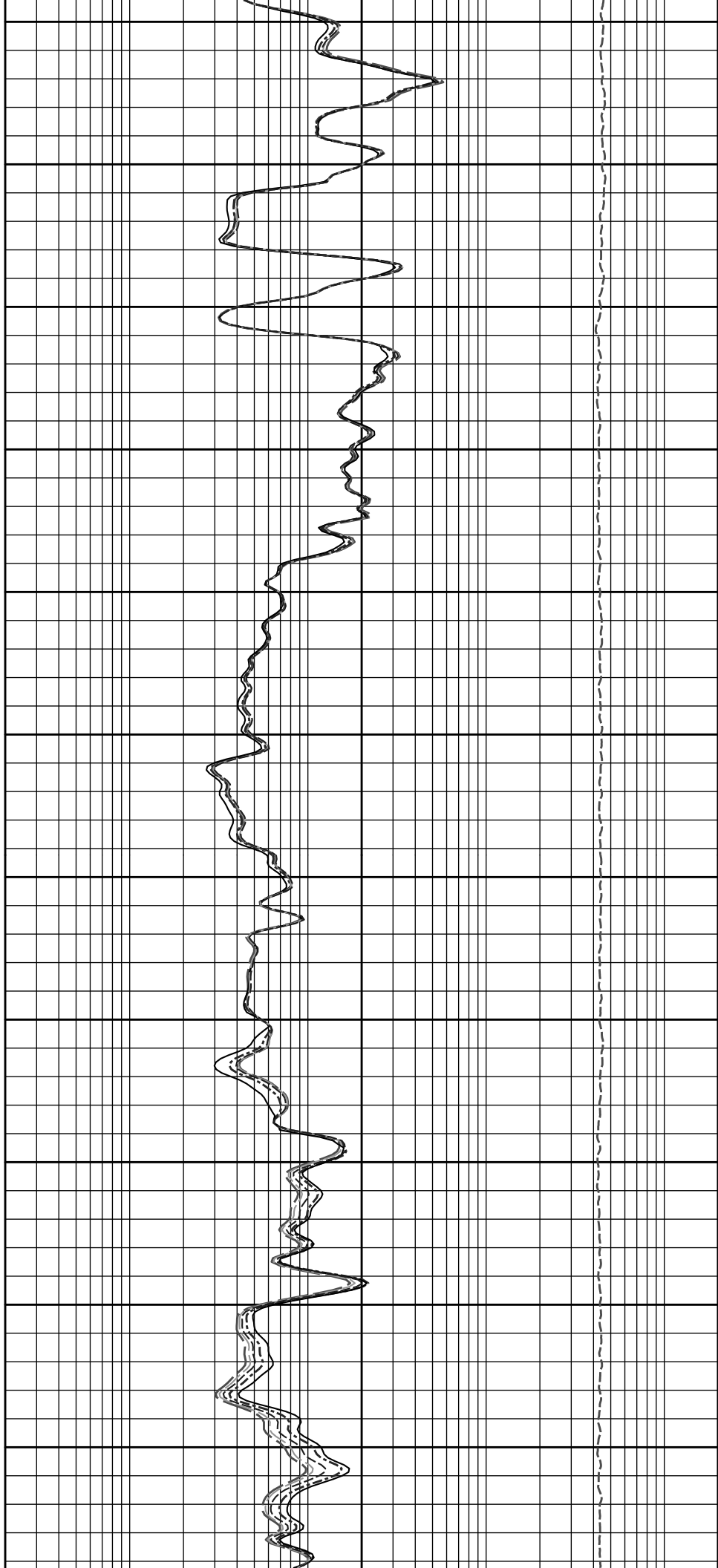


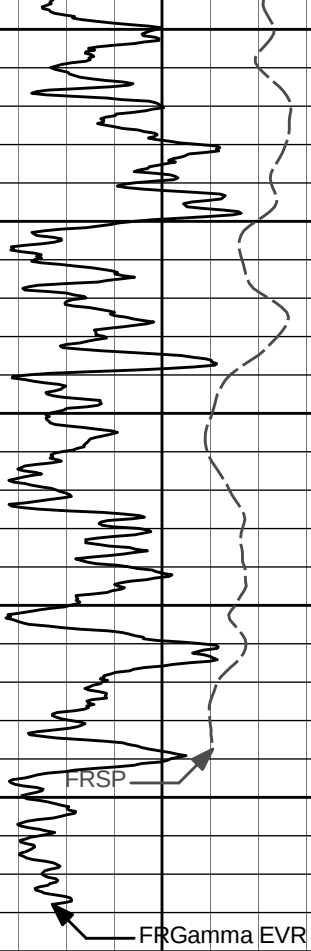
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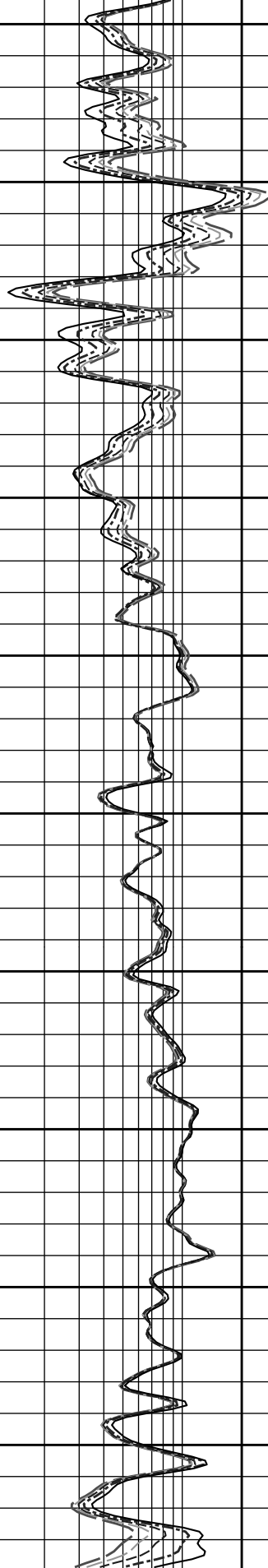


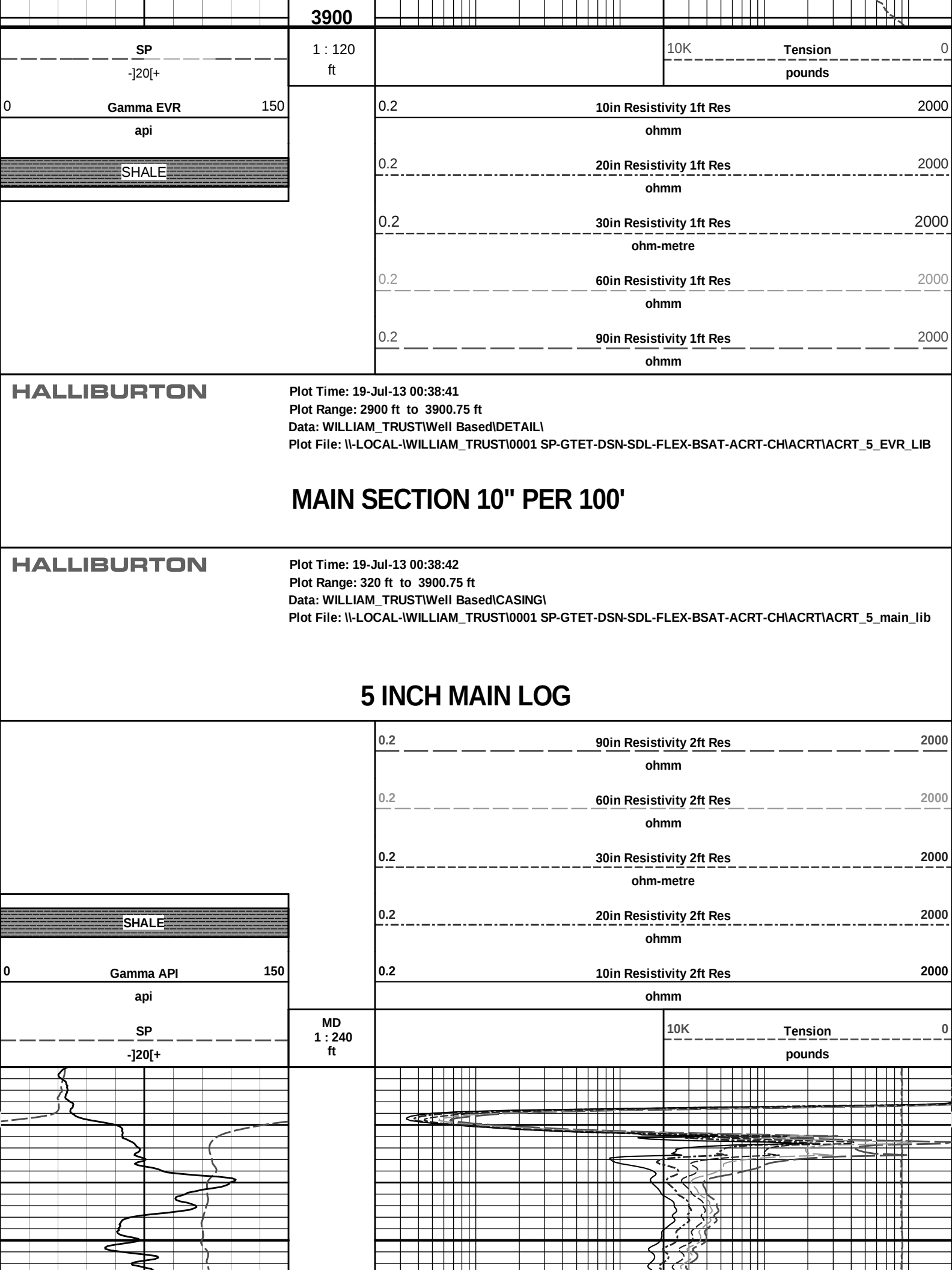
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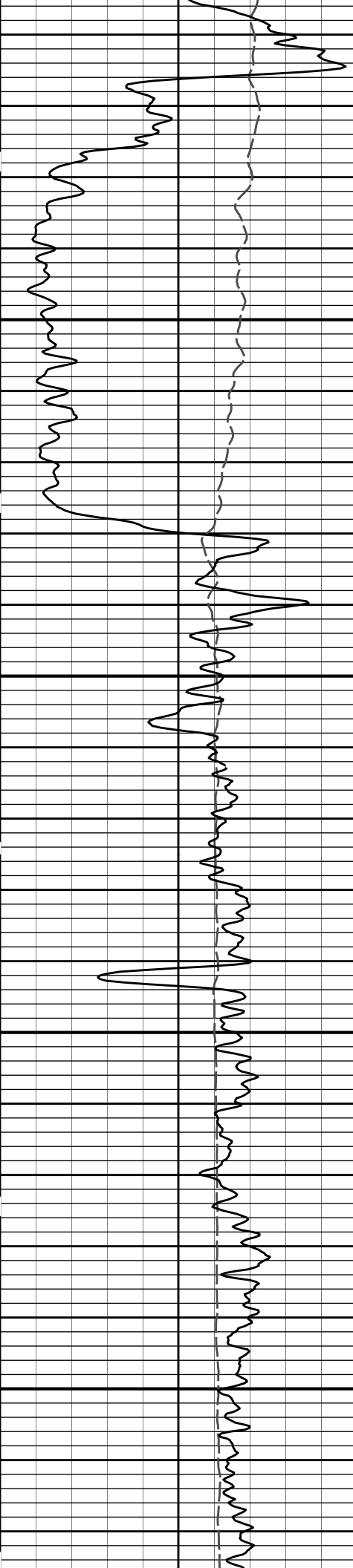




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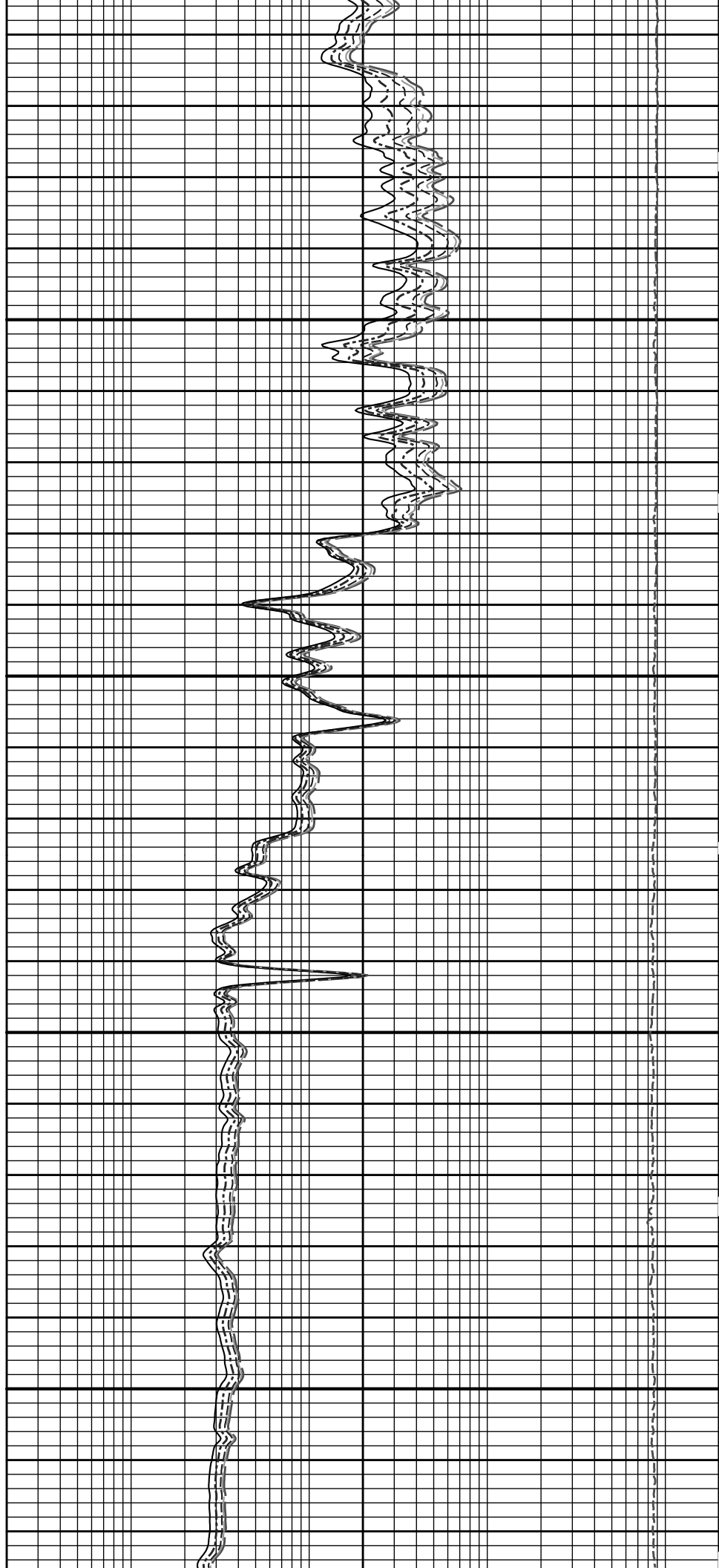


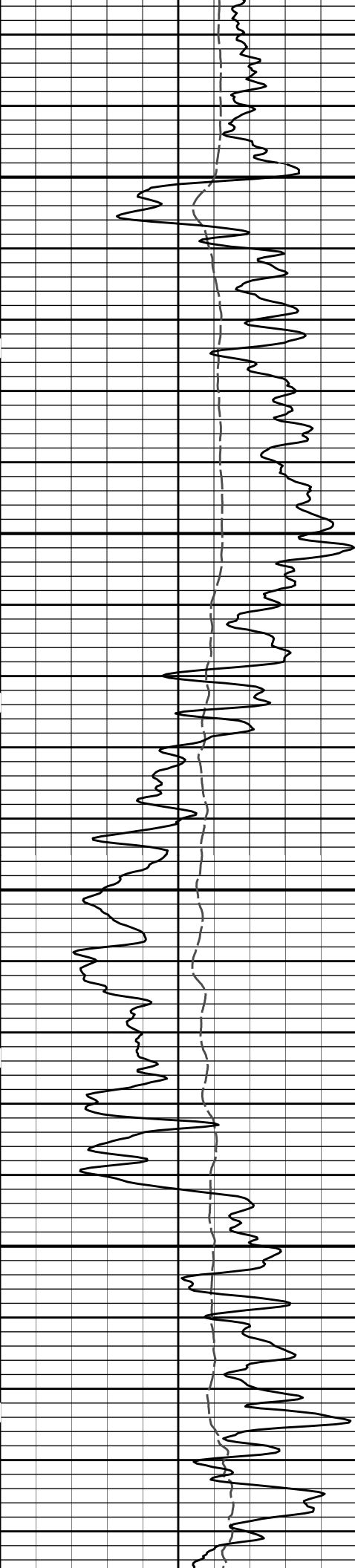




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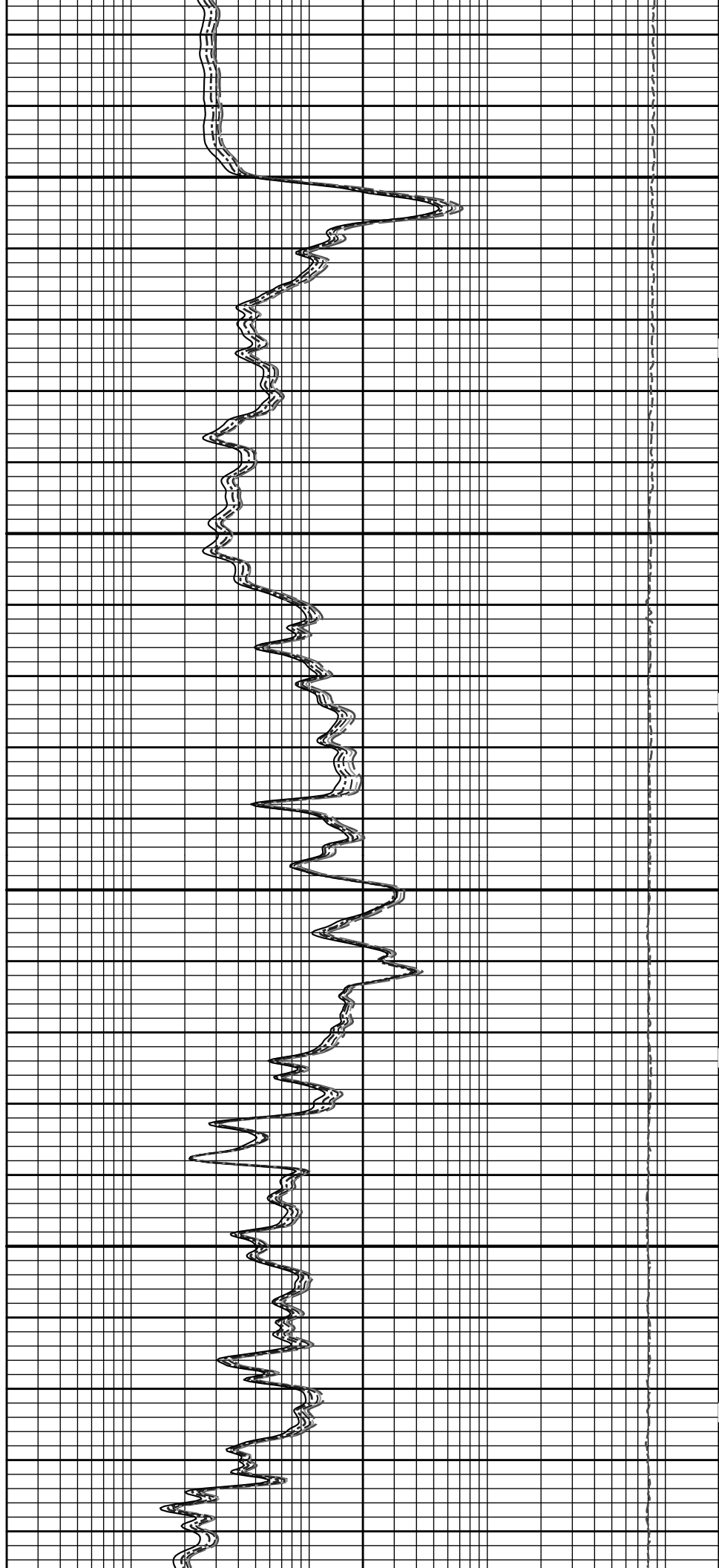
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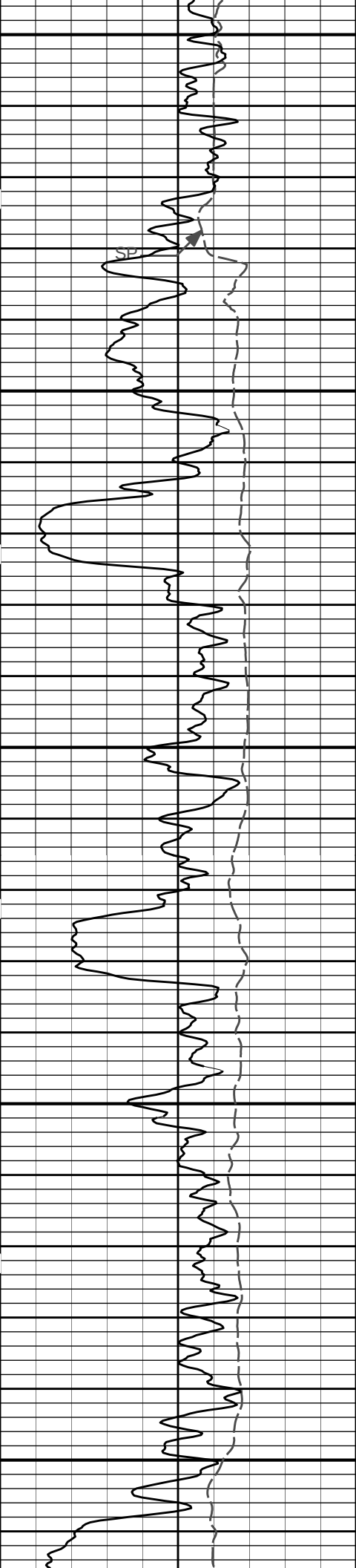




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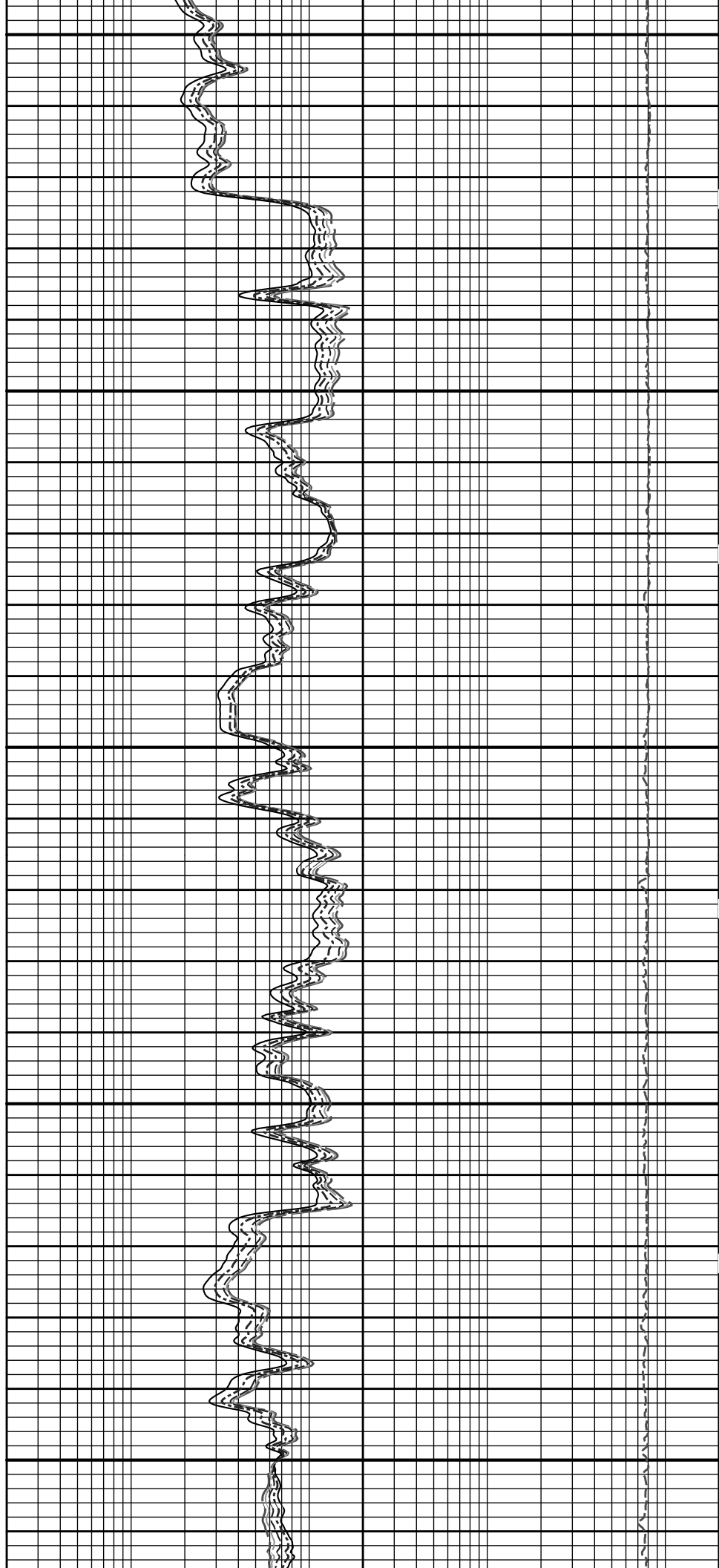


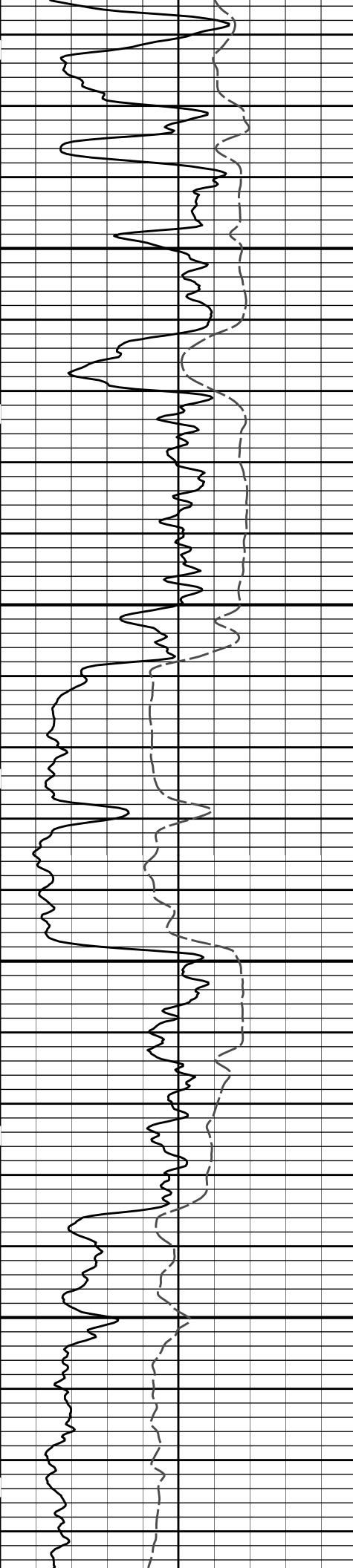


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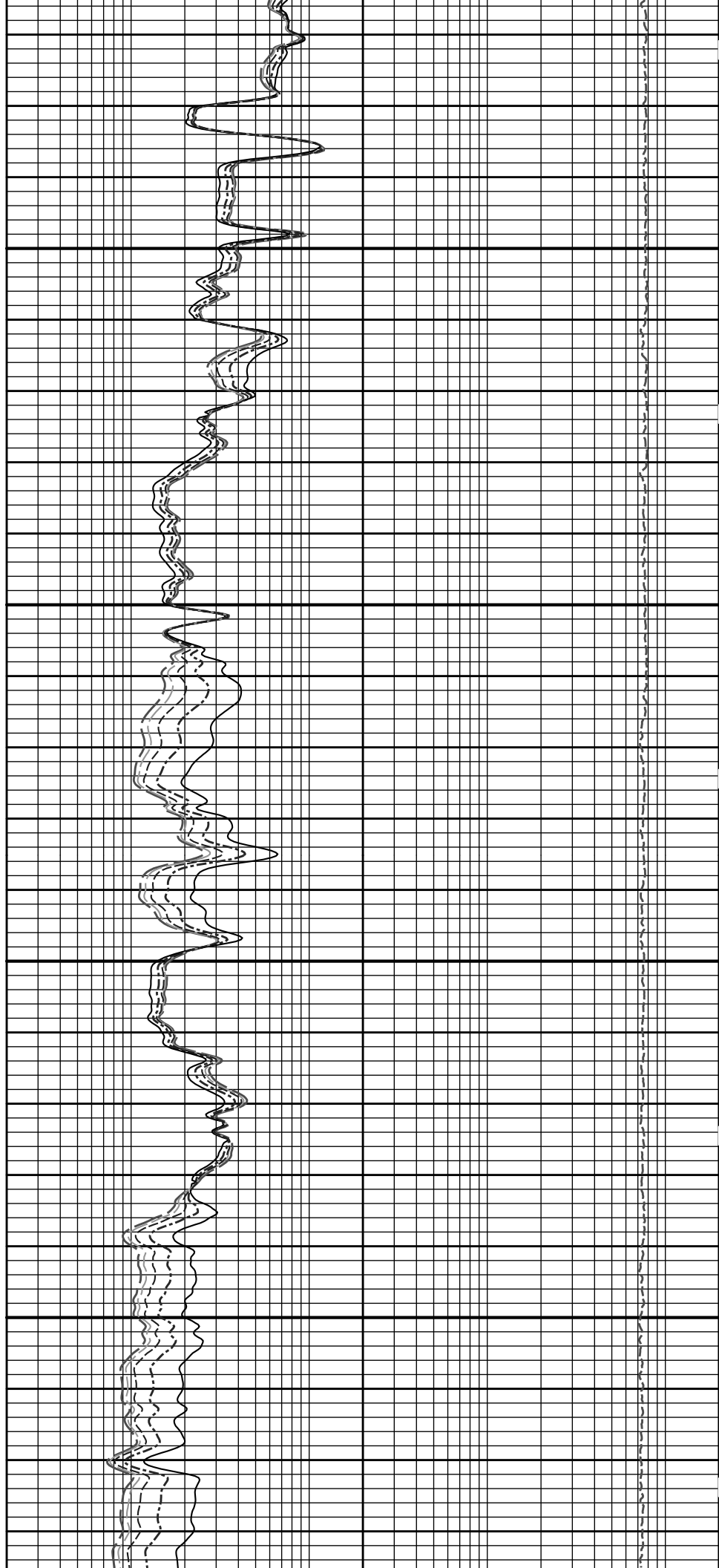
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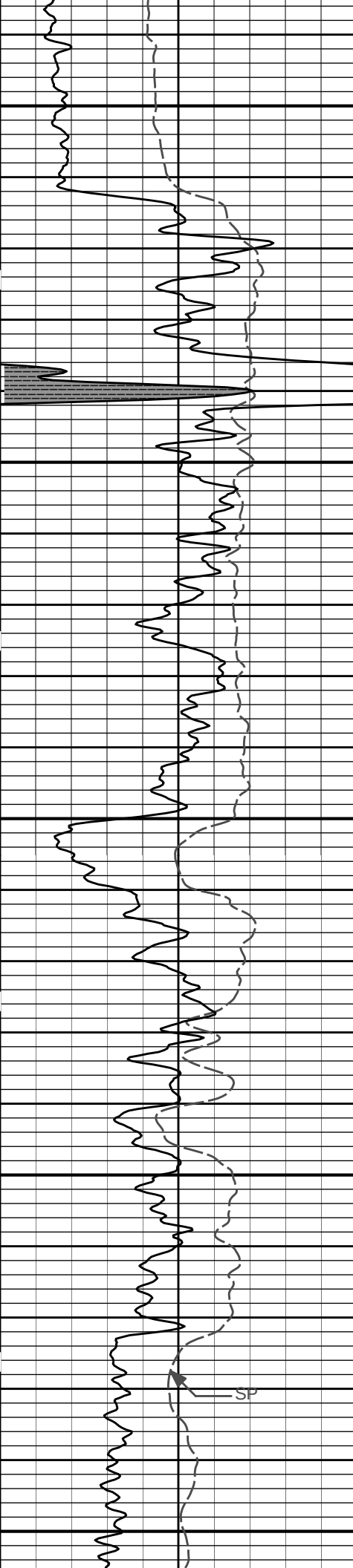




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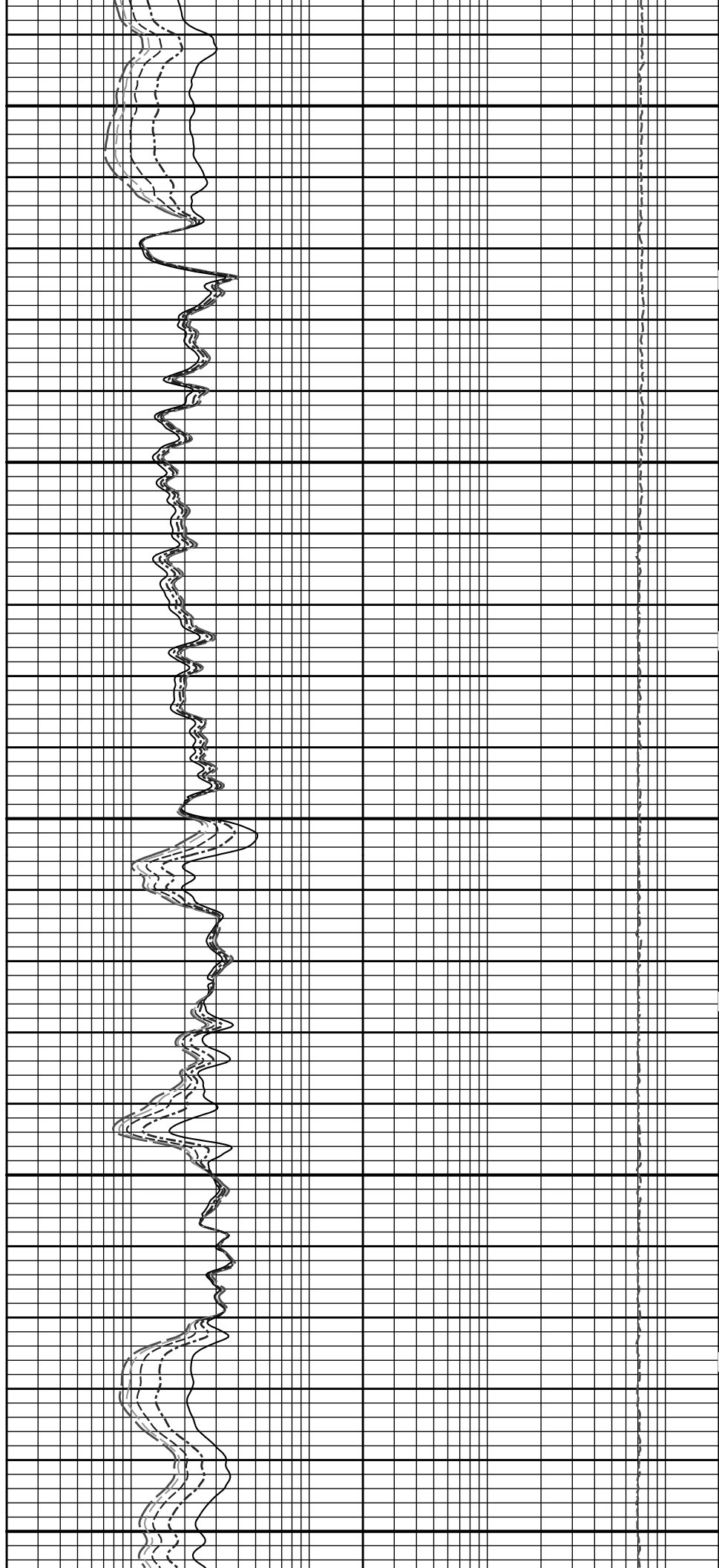
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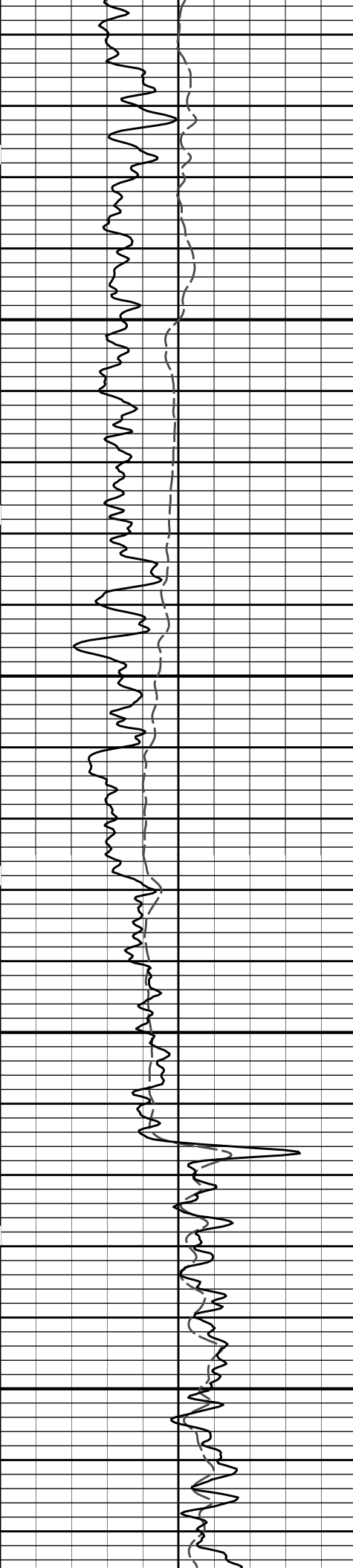




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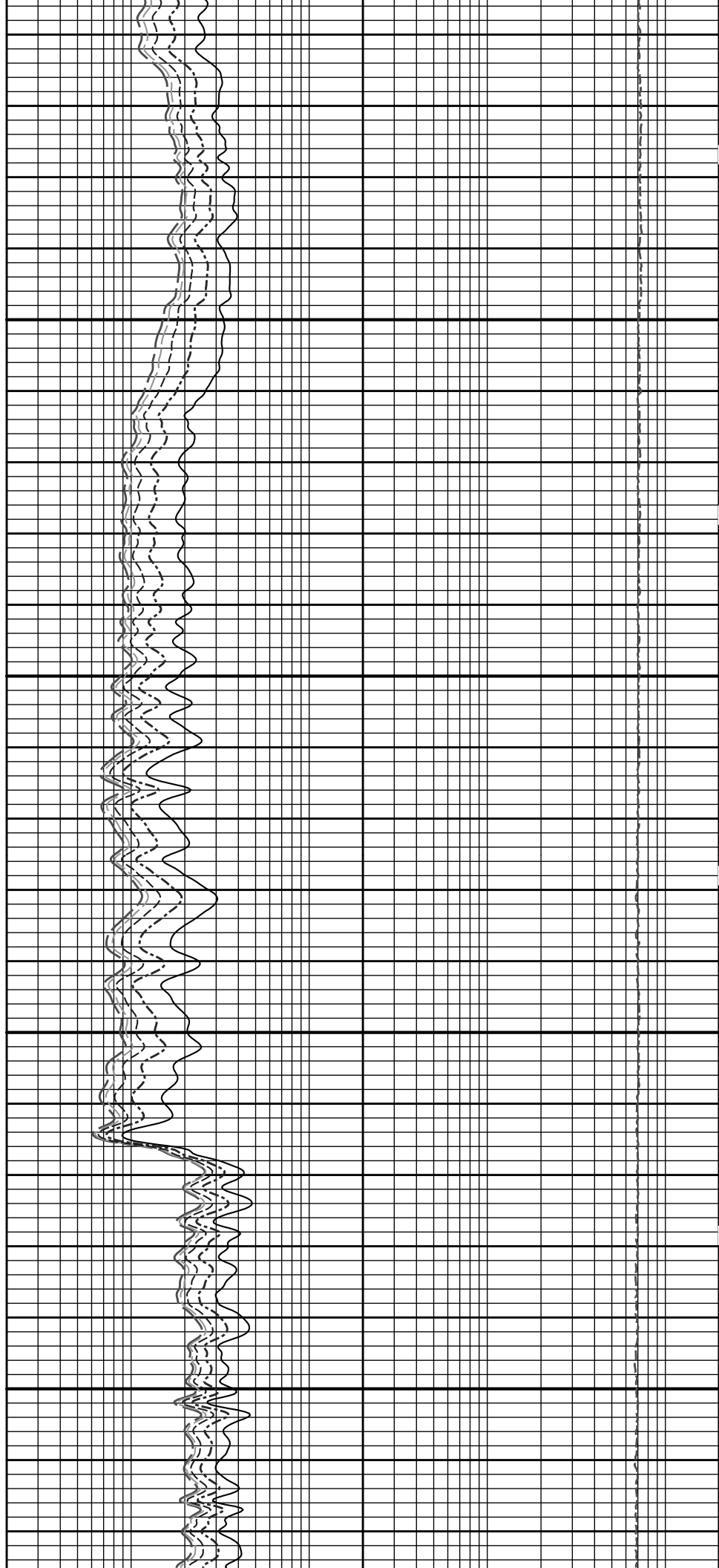
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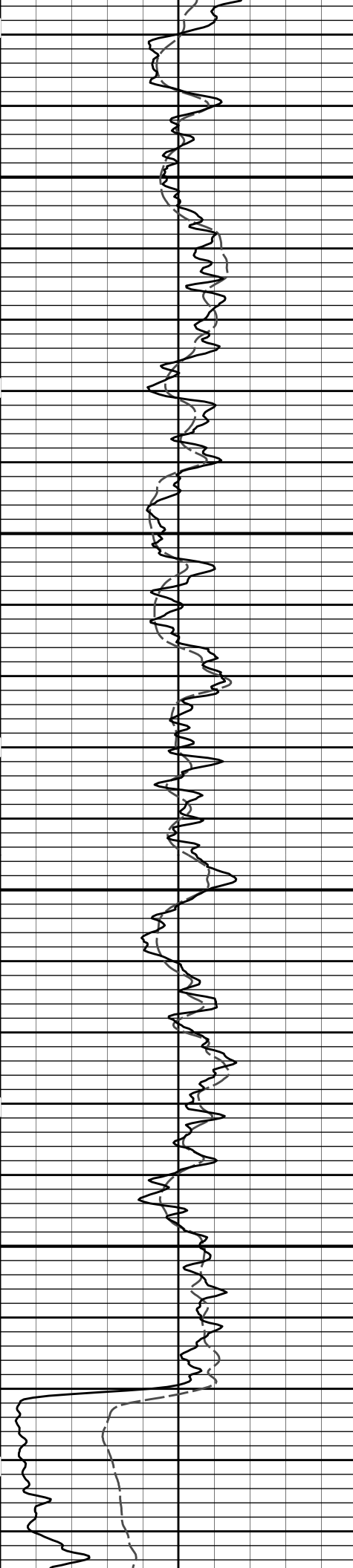




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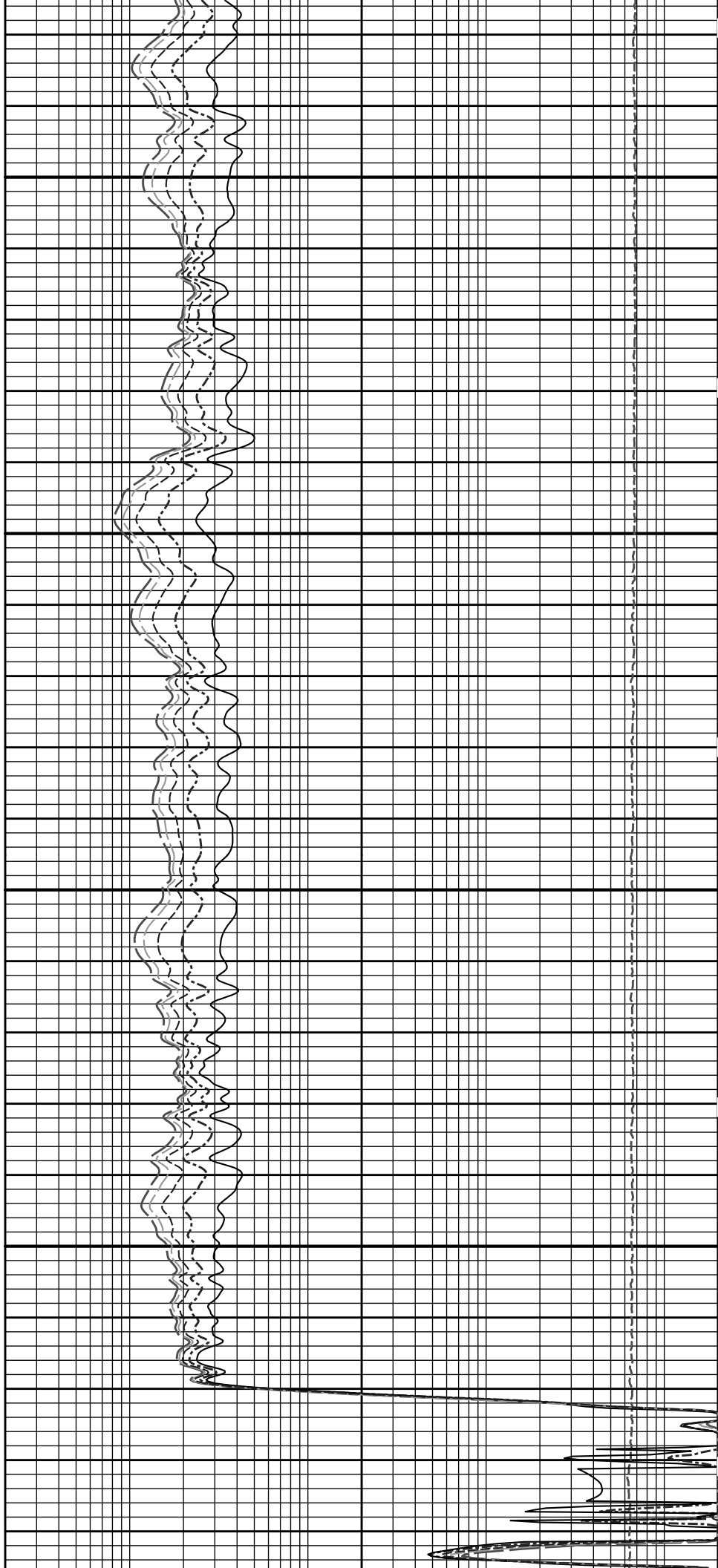
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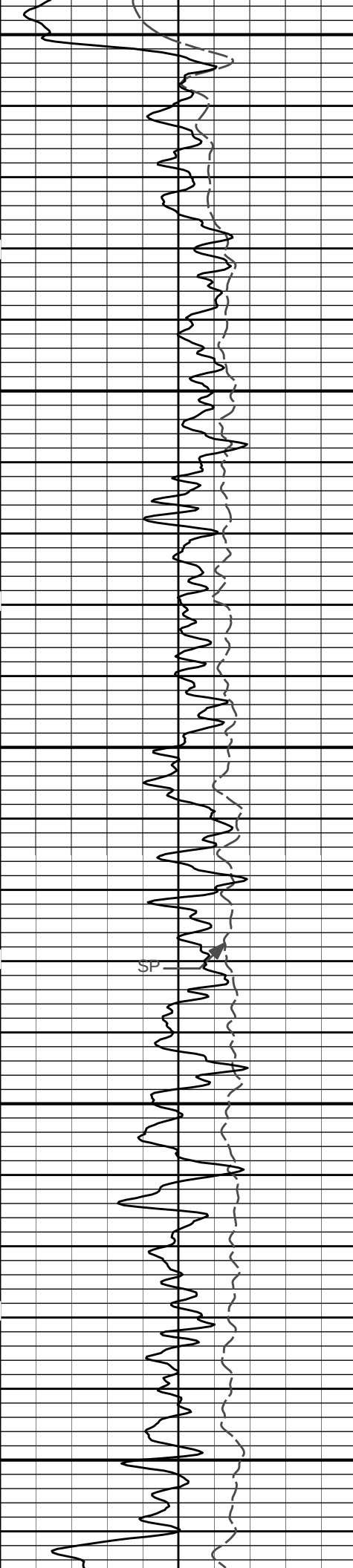




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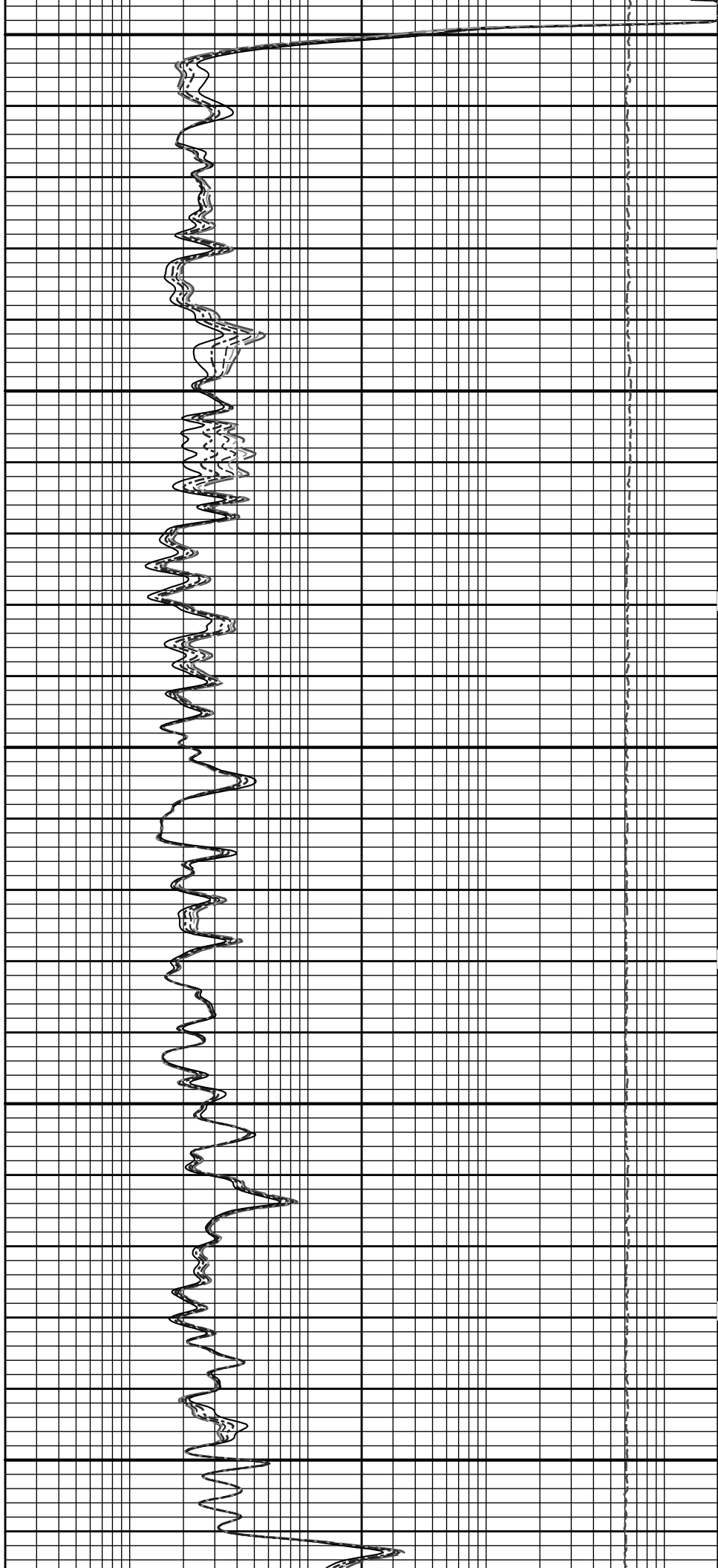


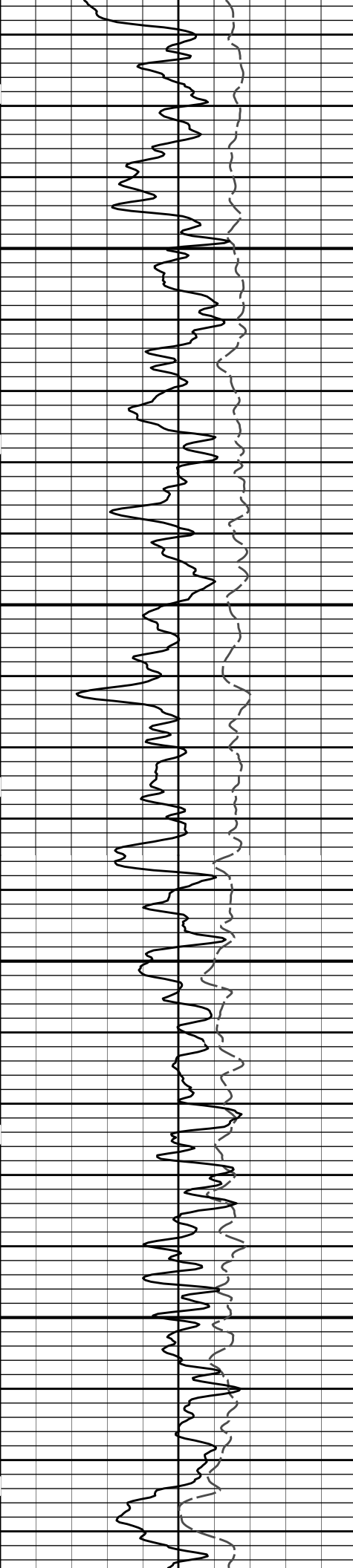


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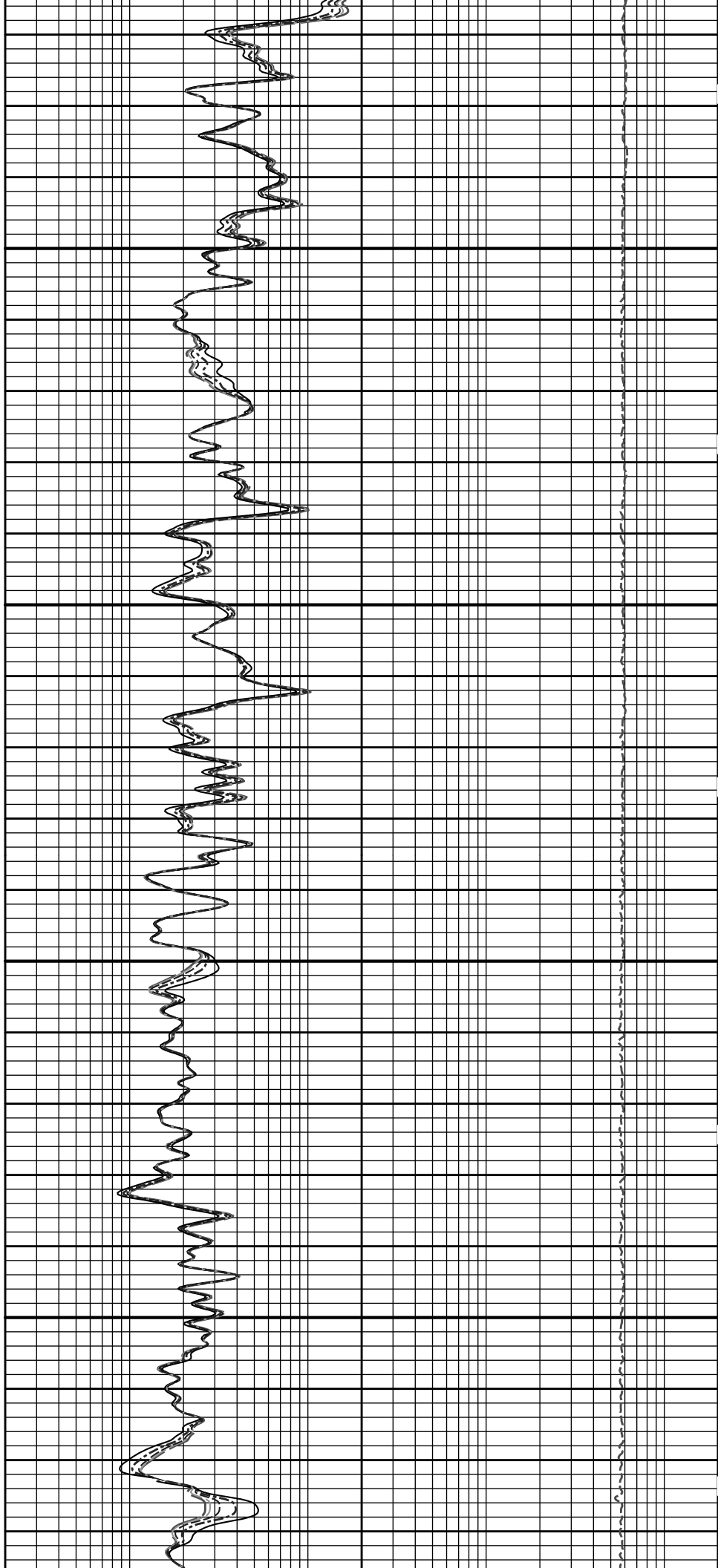
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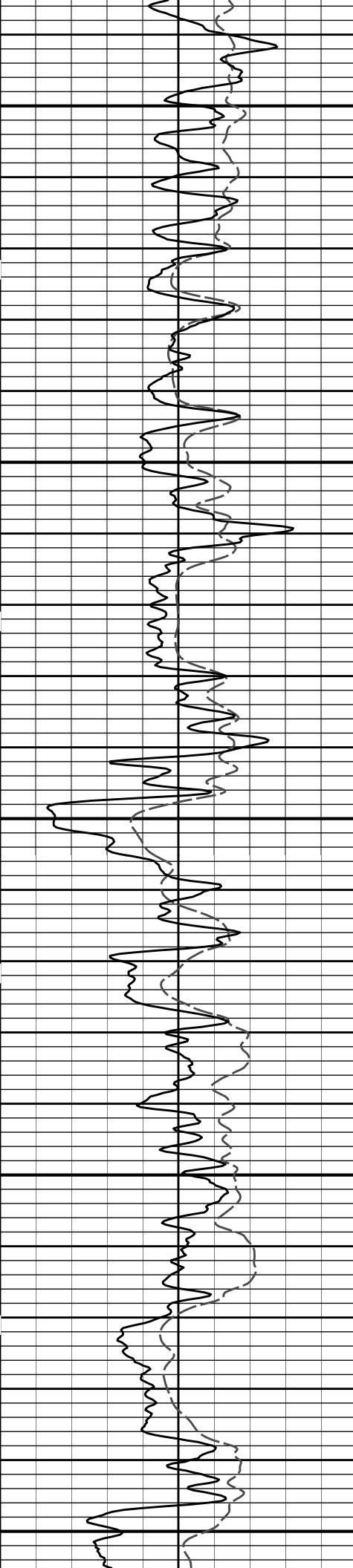




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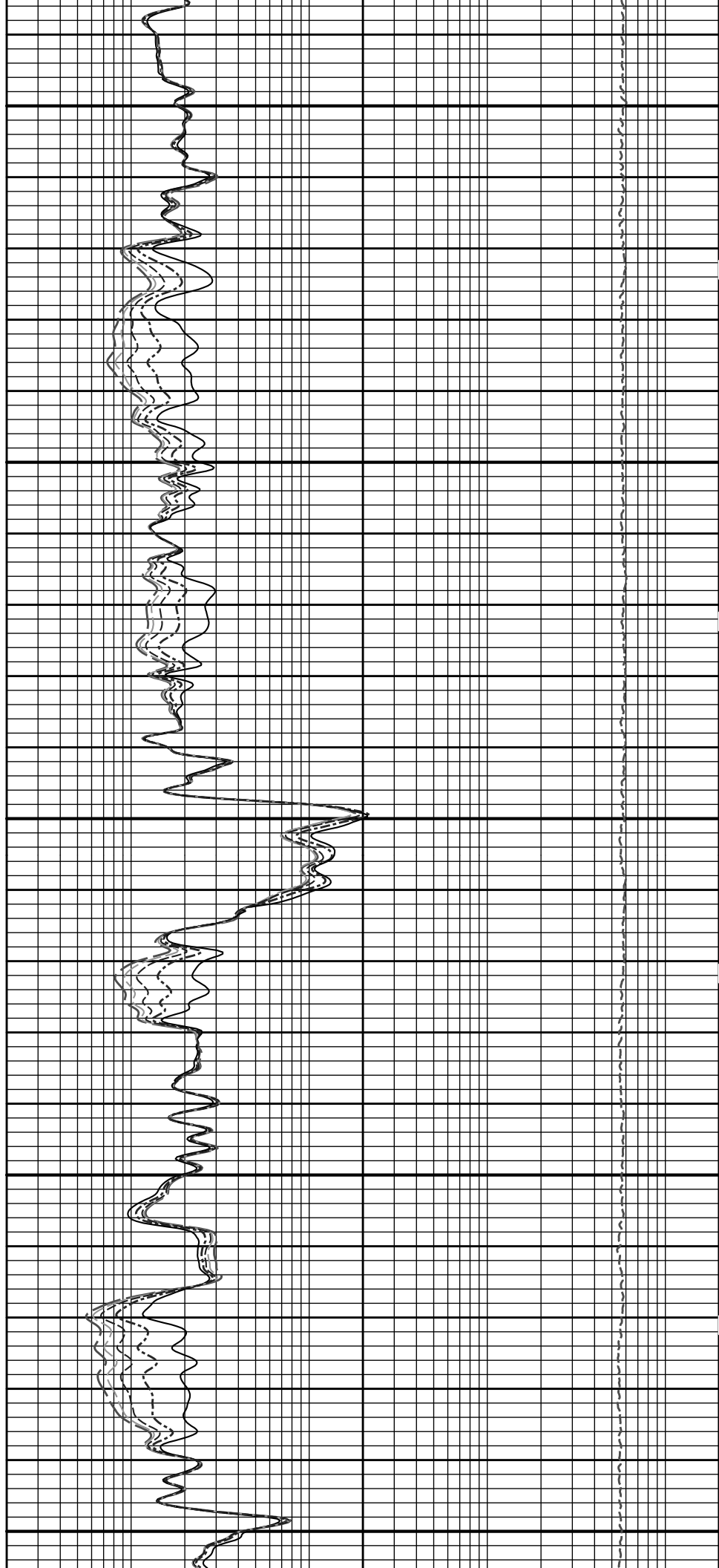
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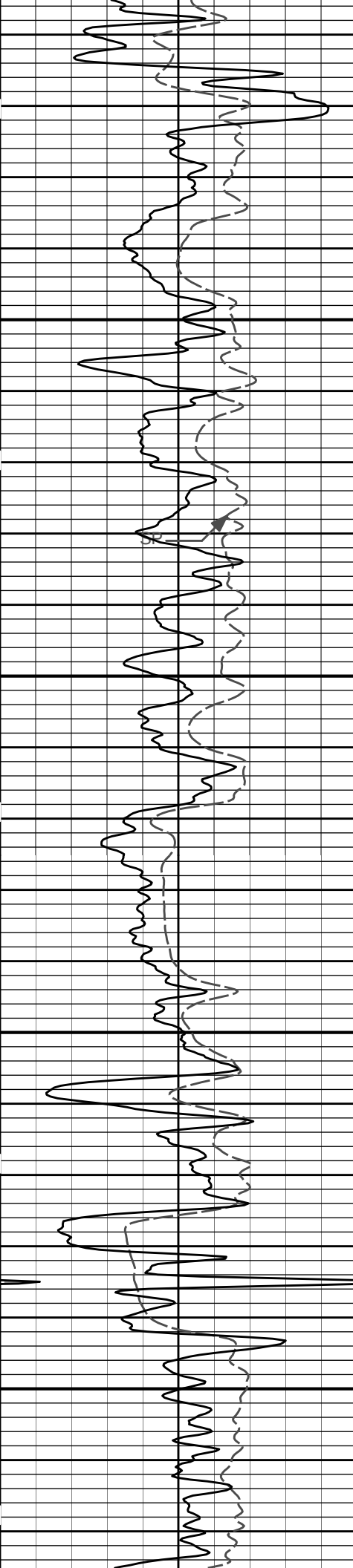




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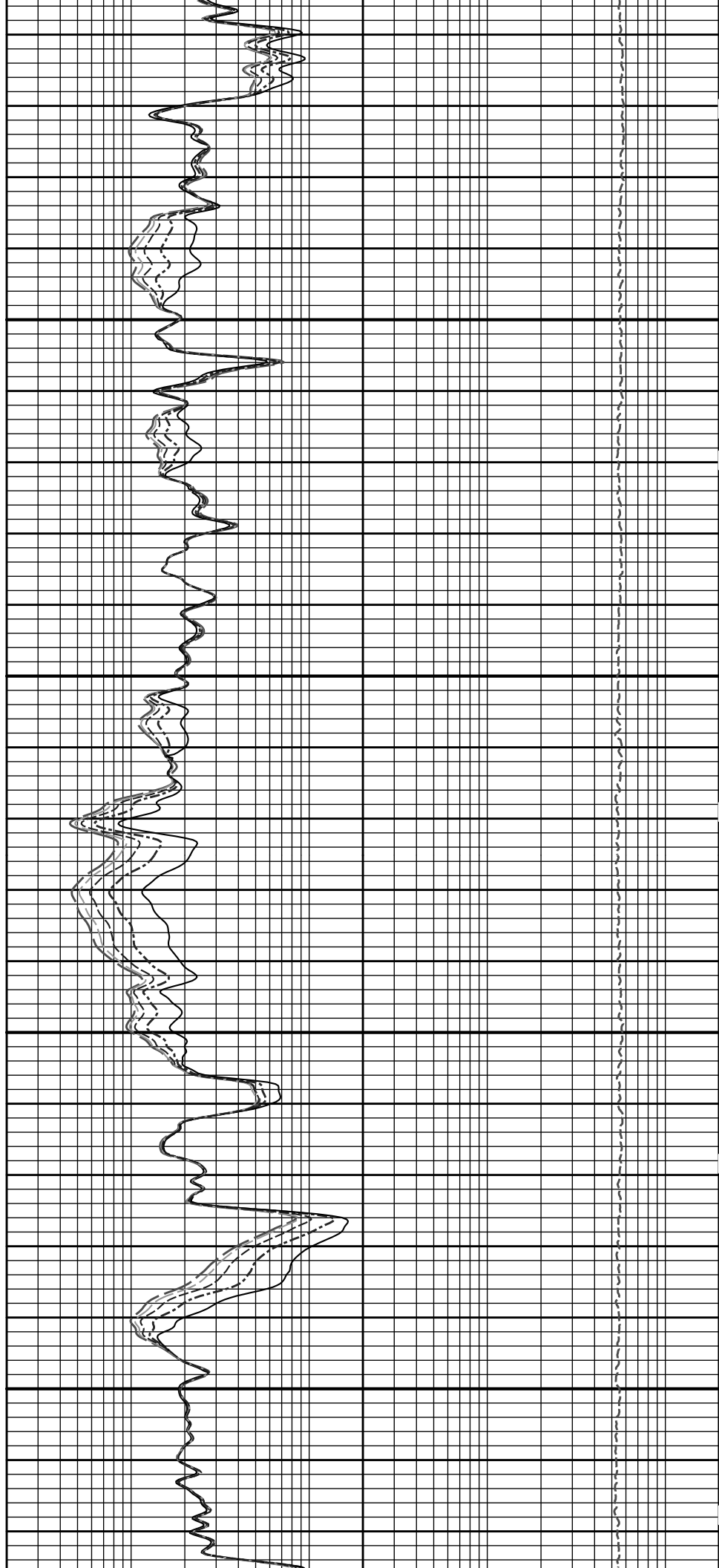
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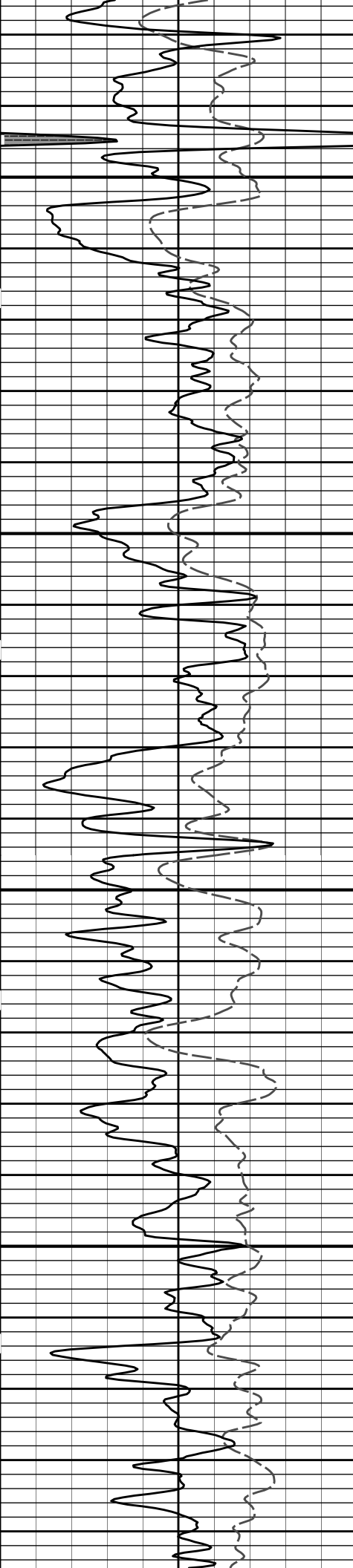




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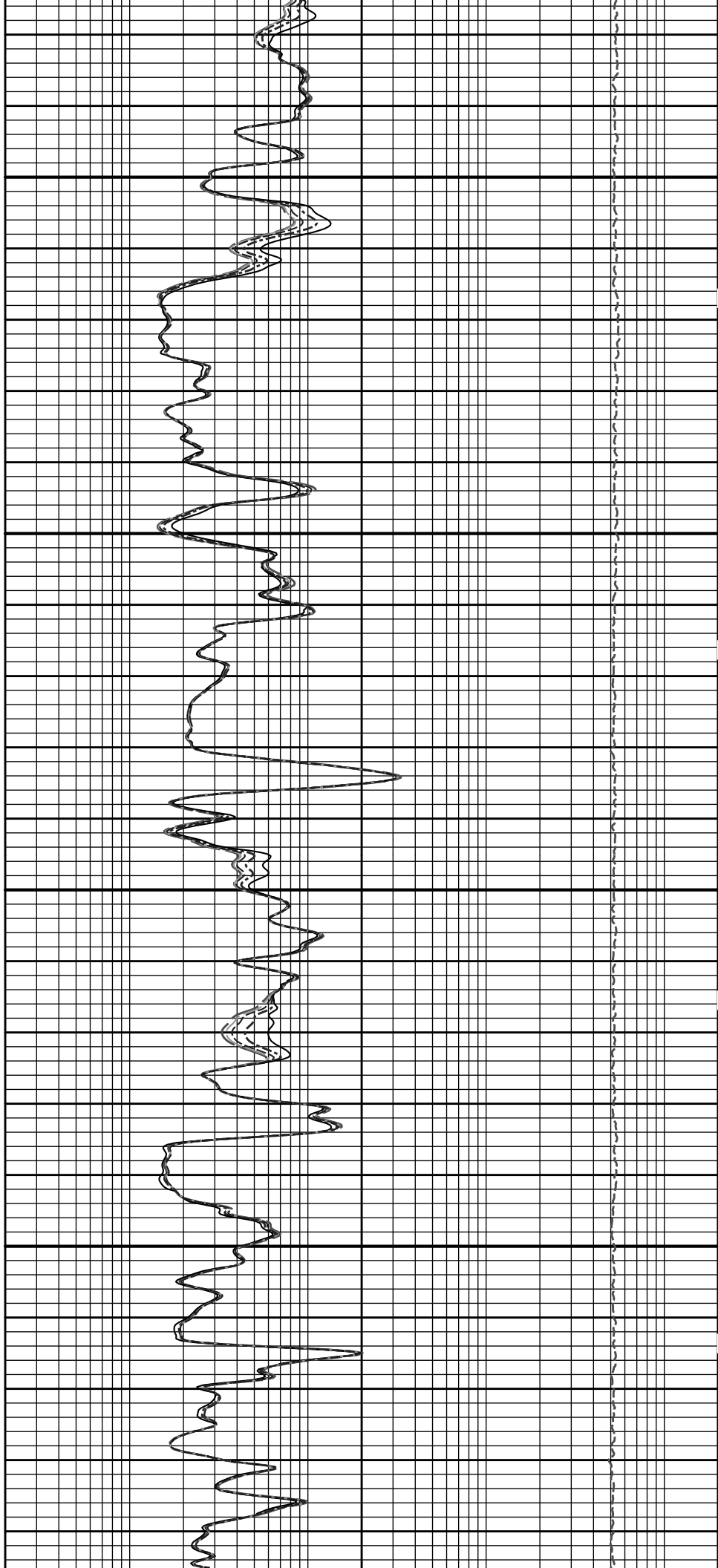
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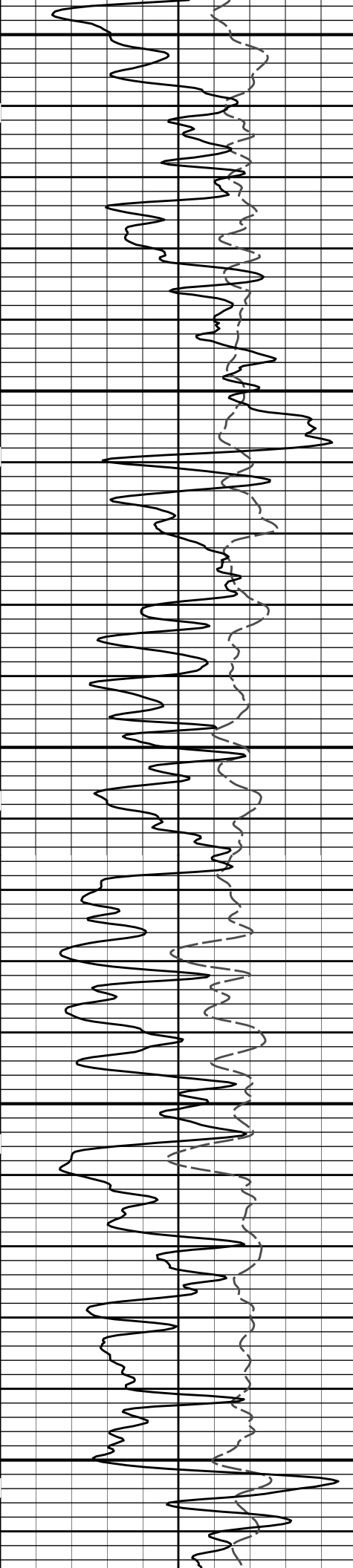




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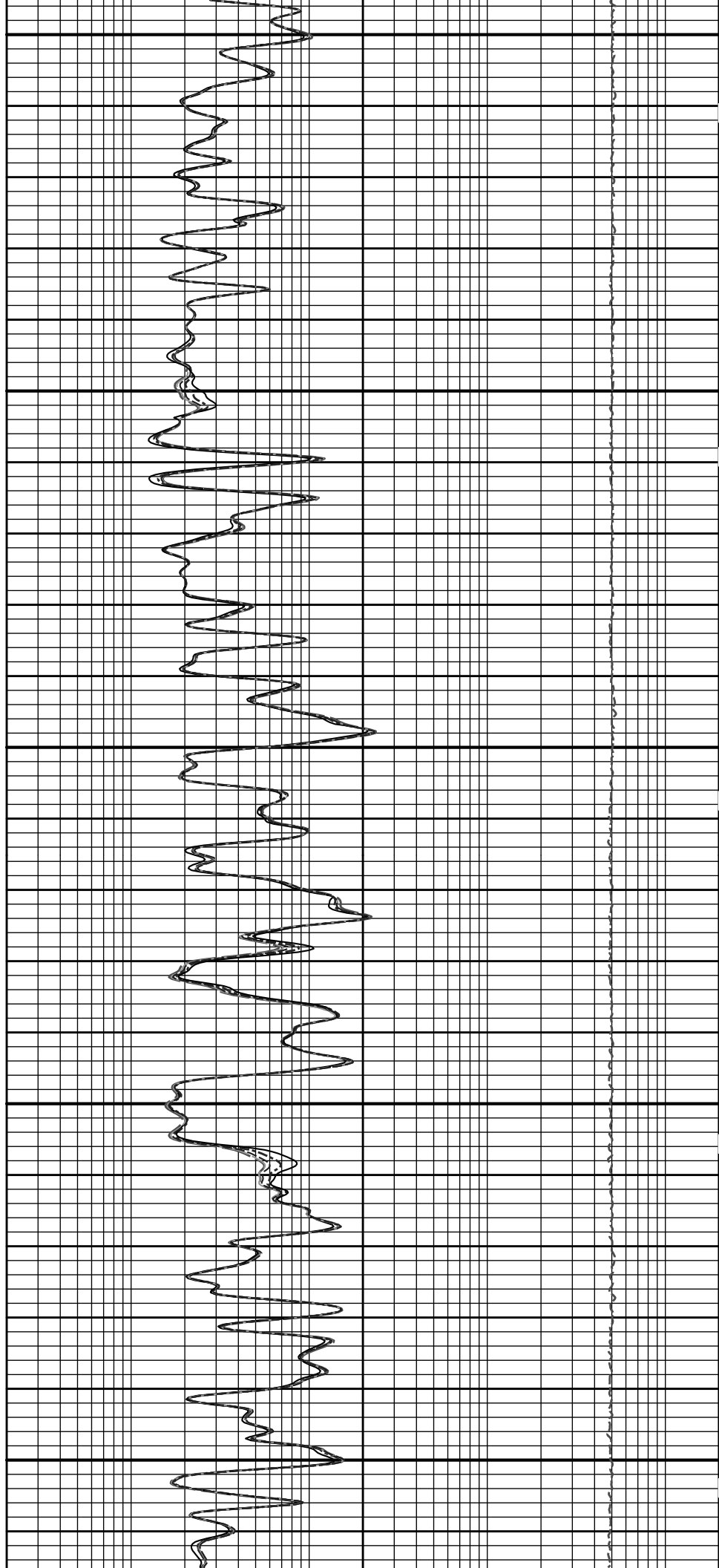


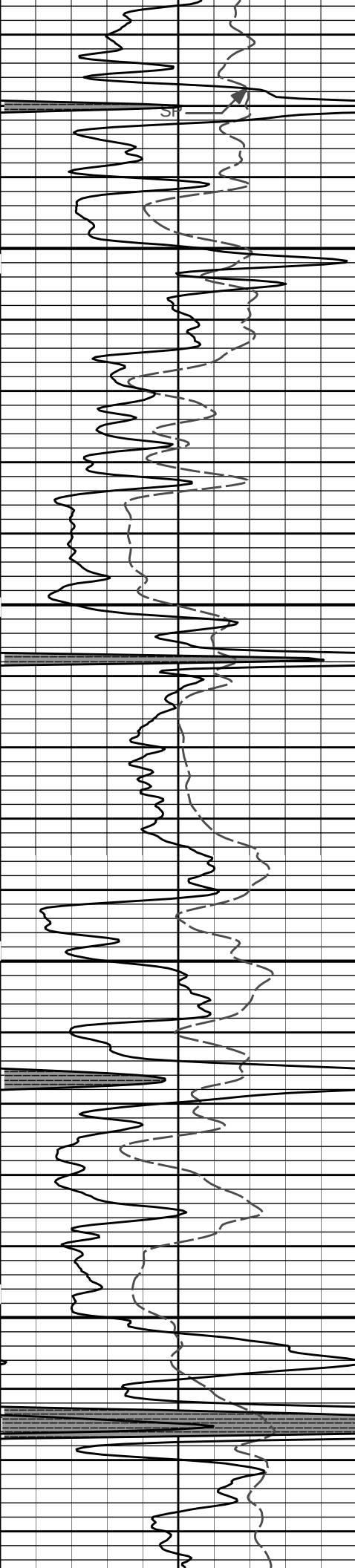


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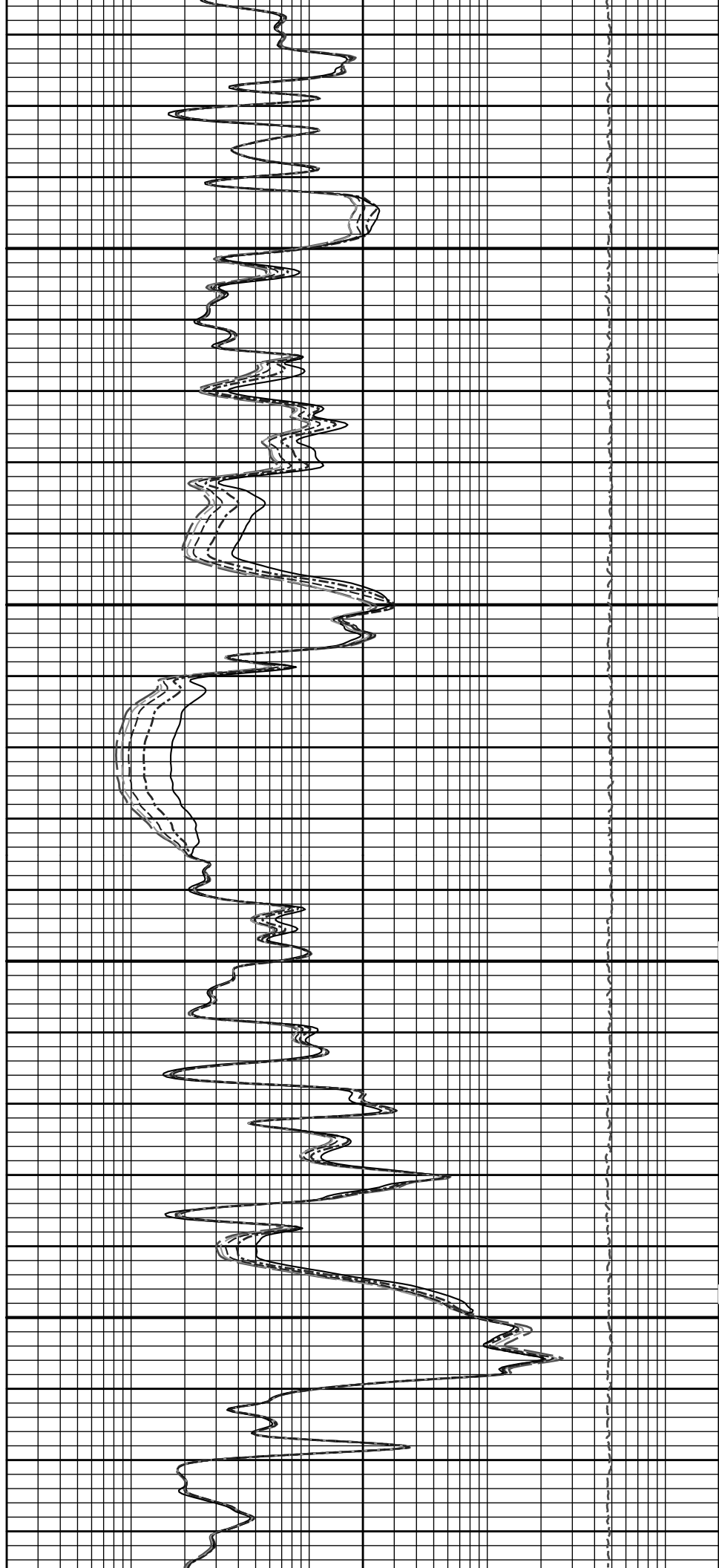
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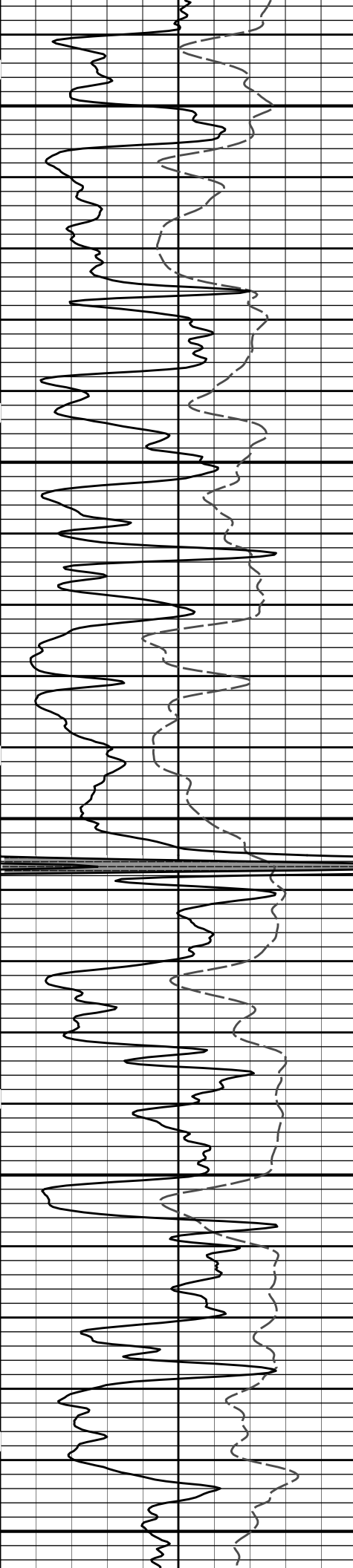




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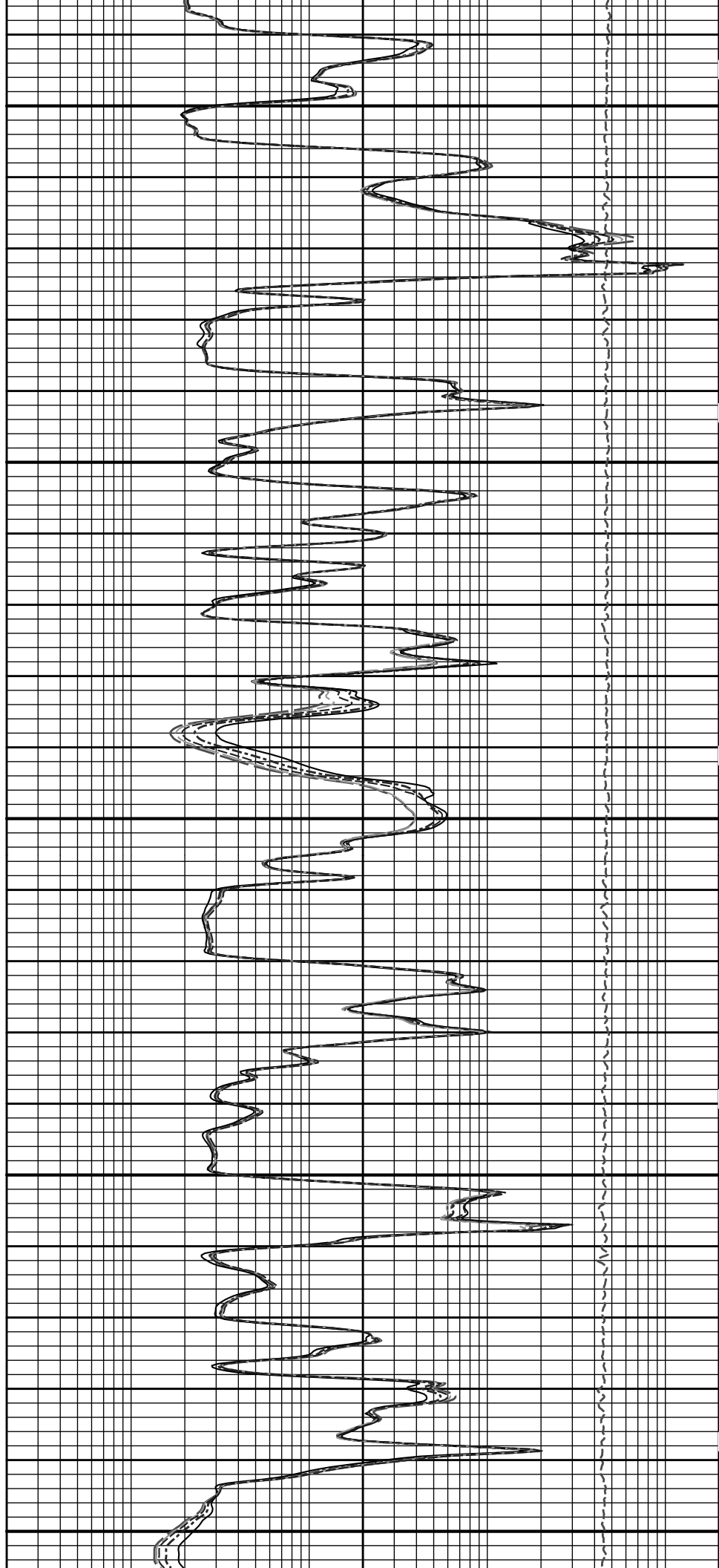
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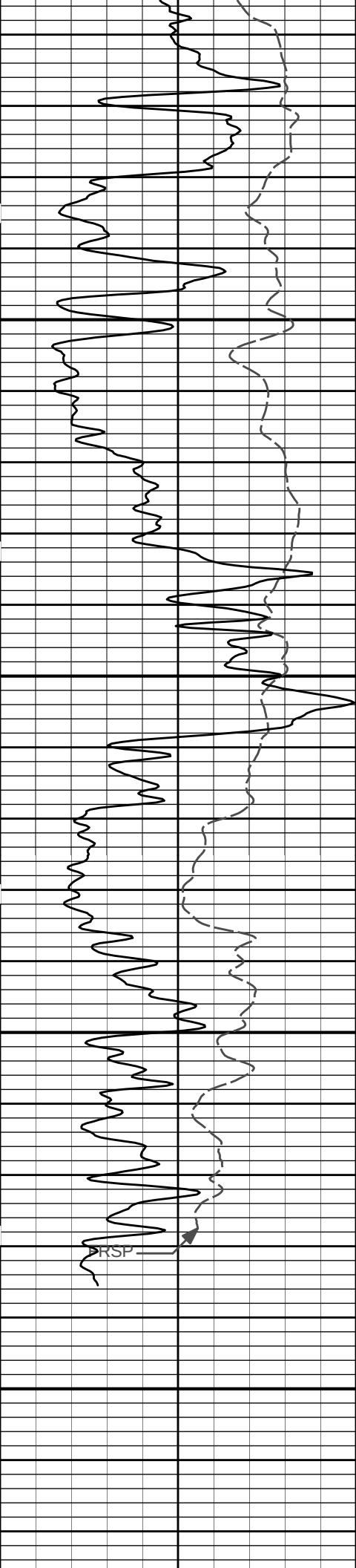




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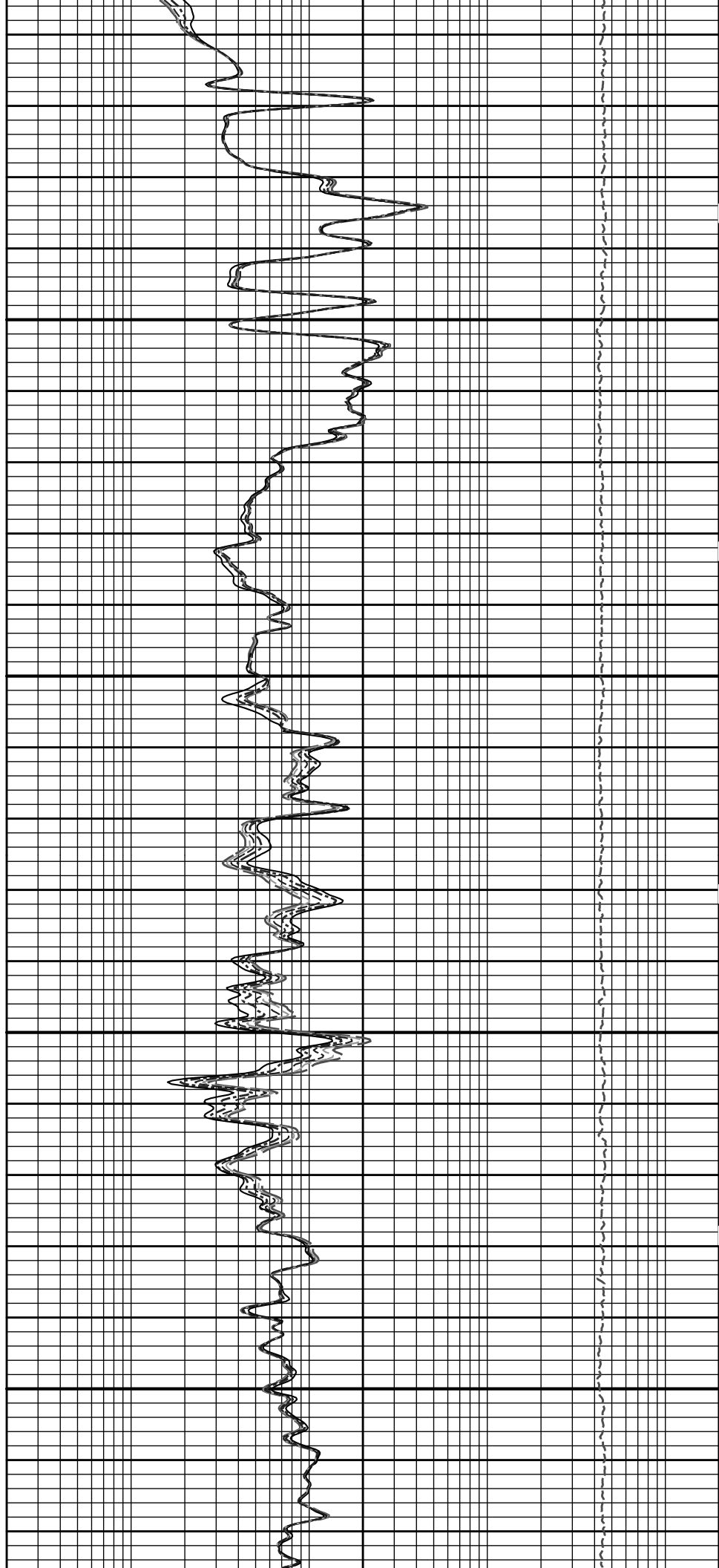
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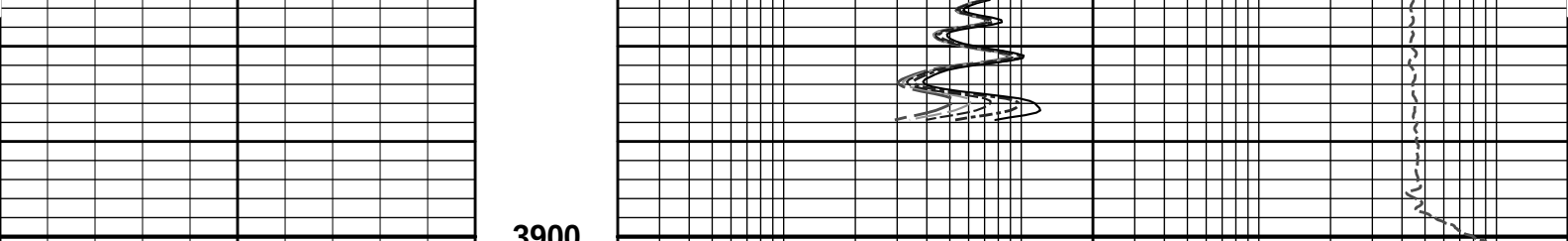




3700

3800





SP -]20[+	MD 1 : 240 ft		10K	Tension	0
				pounds	
0	Gamma API	150	0.2	10in Resistivity 2ft Res	2000
	api			ohmm	
	SHALE		0.2	20in Resistivity 2ft Res	2000
				ohmm	
			0.2	30in Resistivity 2ft Res	2000
				ohm-metre	
			0.2	60in Resistivity 2ft Res	2000
				ohmm	
			0.2	90in Resistivity 2ft Res	2000
				ohmm	

HALLIBURTON

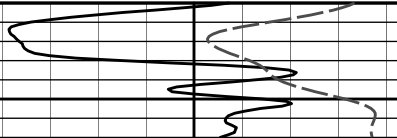
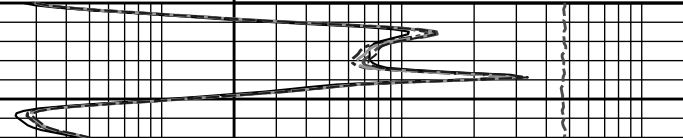
Plot Time: 19-Jul-13 00:38:56
Plot Range: 320 ft to 3900.75 ft
Data: WILLIAM_TRUST\Well Based\CASING\
Plot File: \\-LOCAL-WILLIAM_TRUST\0001 SP-GTET-DSN-SDL-FLEX-BSAT-ACRT-CHI\ACRT\ACRT_5_main_lib

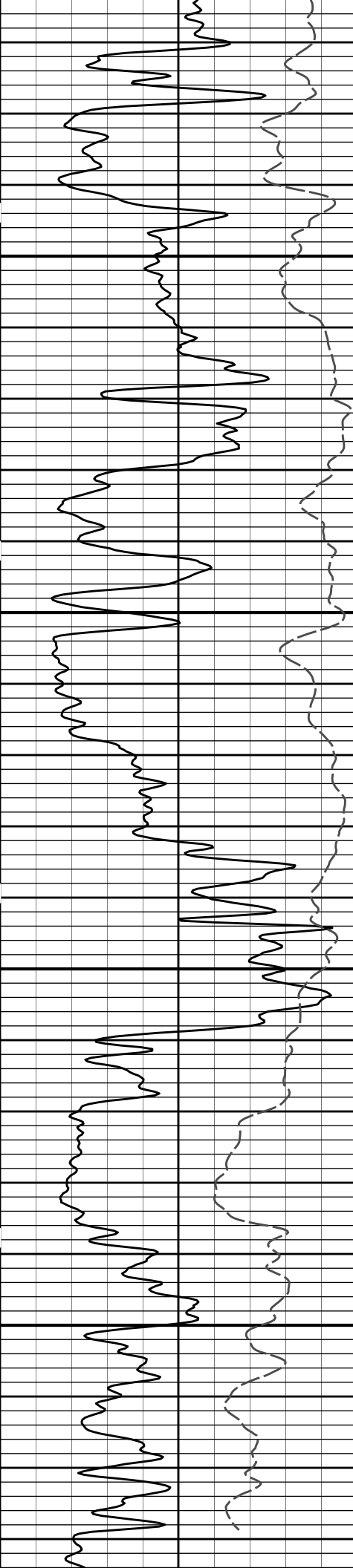
5 INCH MAIN LOG

HALLIBURTON

Plot Time: 19-Jul-13 00:38:56
Plot Range: 3600 ft to 3901.83 ft
Data: WILLIAM_TRUST\Well Based\REPEAT\
Plot File: \\-LOCAL-WILLIAM_TRUST\0001 SP-GTET-DSN-SDL-FLEX-BSAT-ACRT-CHI\ACRT\ACRT_5_repeat_lib

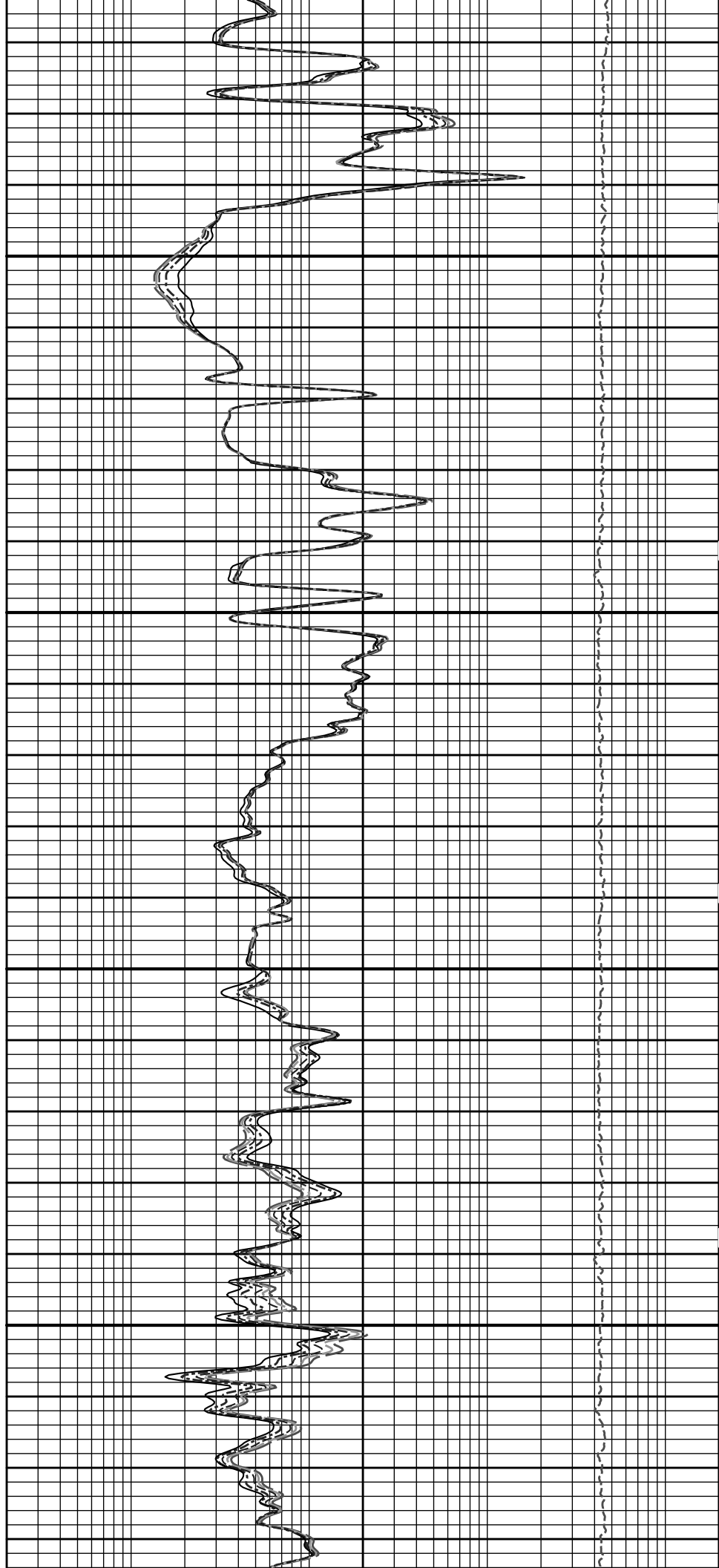
REPEAT SECTION

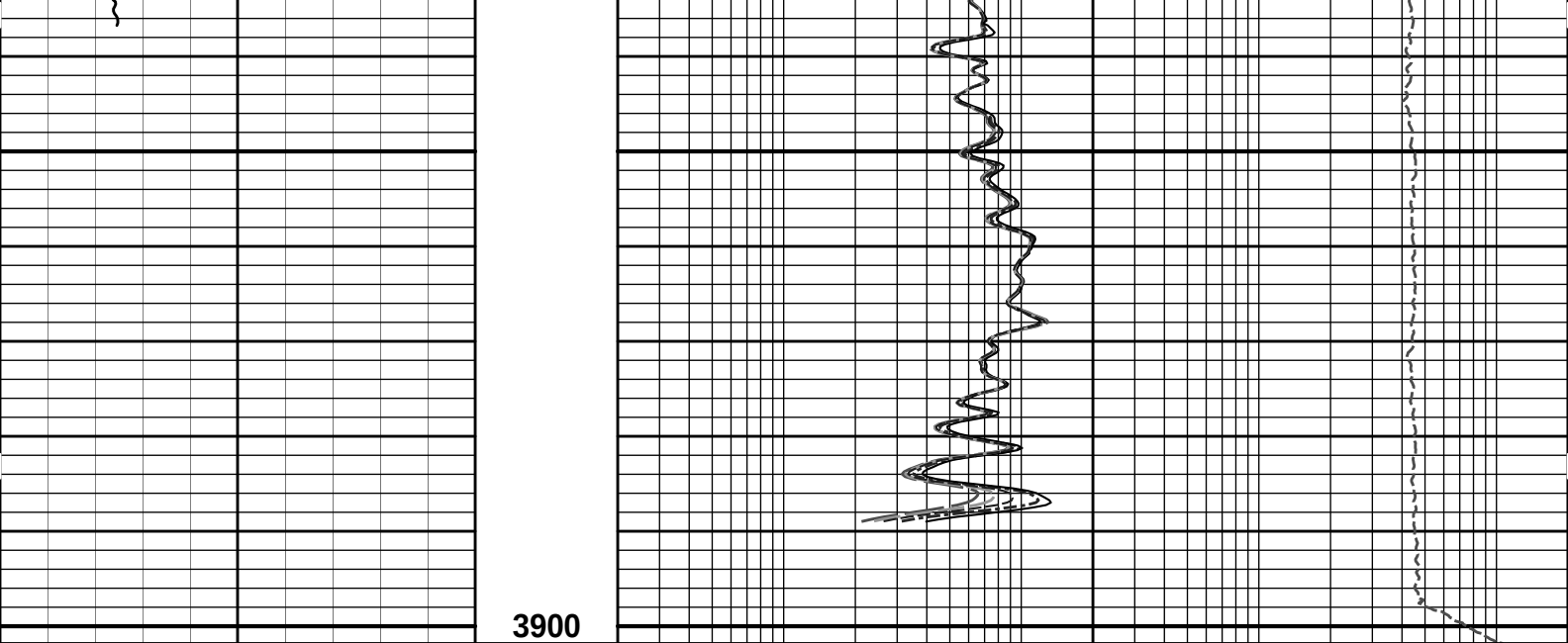
SHALE Gamma API api SP -]20[+	MD 1 : 240 ft 3000	0.2	90in Resistivity 2ft Res	2000
		ohmm		
		0.2	60in Resistivity 2ft Res	2000
		ohmm		
		0.2	30in Resistivity 2ft Res	2000
		ohm-metre		
		0.2	20in Resistivity 2ft Res	2000
		ohmm		
		0.2	10in Resistivity 2ft Res	2000
		ohmm		
		10K	Tension	0
			pounds	
				



3700

3800





3900

SP		MD 1 : 240 ft		10K	Tension	0
-]20[+				pounds		
0	Gamma API	150		0.2	10in Resistivity 2ft Res	2000
api				ohmm		
SHALE				0.2	20in Resistivity 2ft Res	2000
				ohmm		
				0.2	30in Resistivity 2ft Res	2000
				ohm-metre		
				0.2	60in Resistivity 2ft Res	2000
				ohmm		
			0.2	90in Resistivity 2ft Res	2000	
			ohmm			

HALLIBURTON

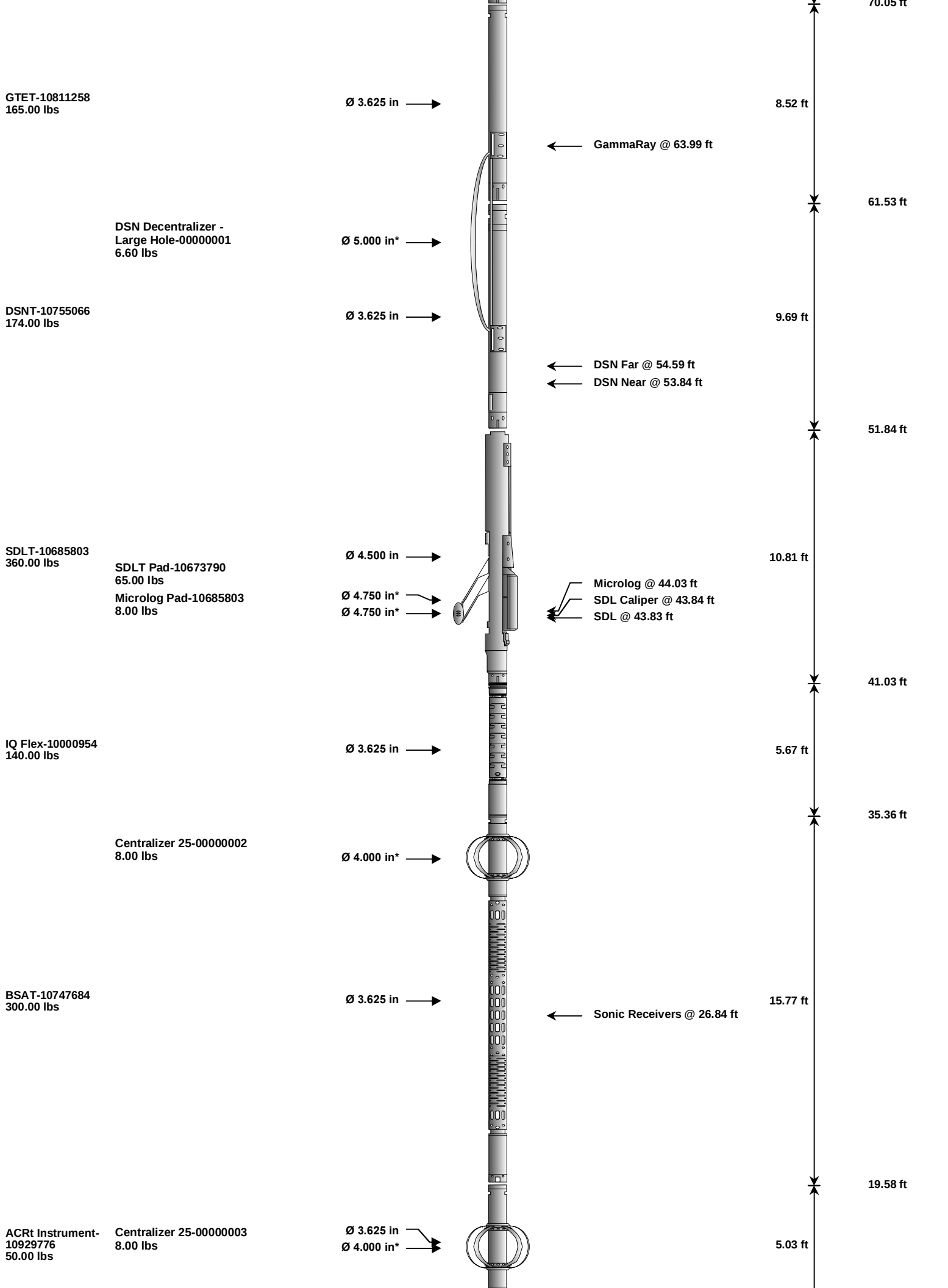
Plot Time: 19-Jul-13 00:39:00
Plot Range: 3600 ft to 3901.83 ft
Data: WILLIAM_TRUST\Well Based\REPEAT\
Plot File: \\-LOCAL-WILLIAM_TRUST\0001 SP-GTET-DSN-SDL-FLEX-BSAT-ACRT-CHIACRTIACRT_5_repeat_lib

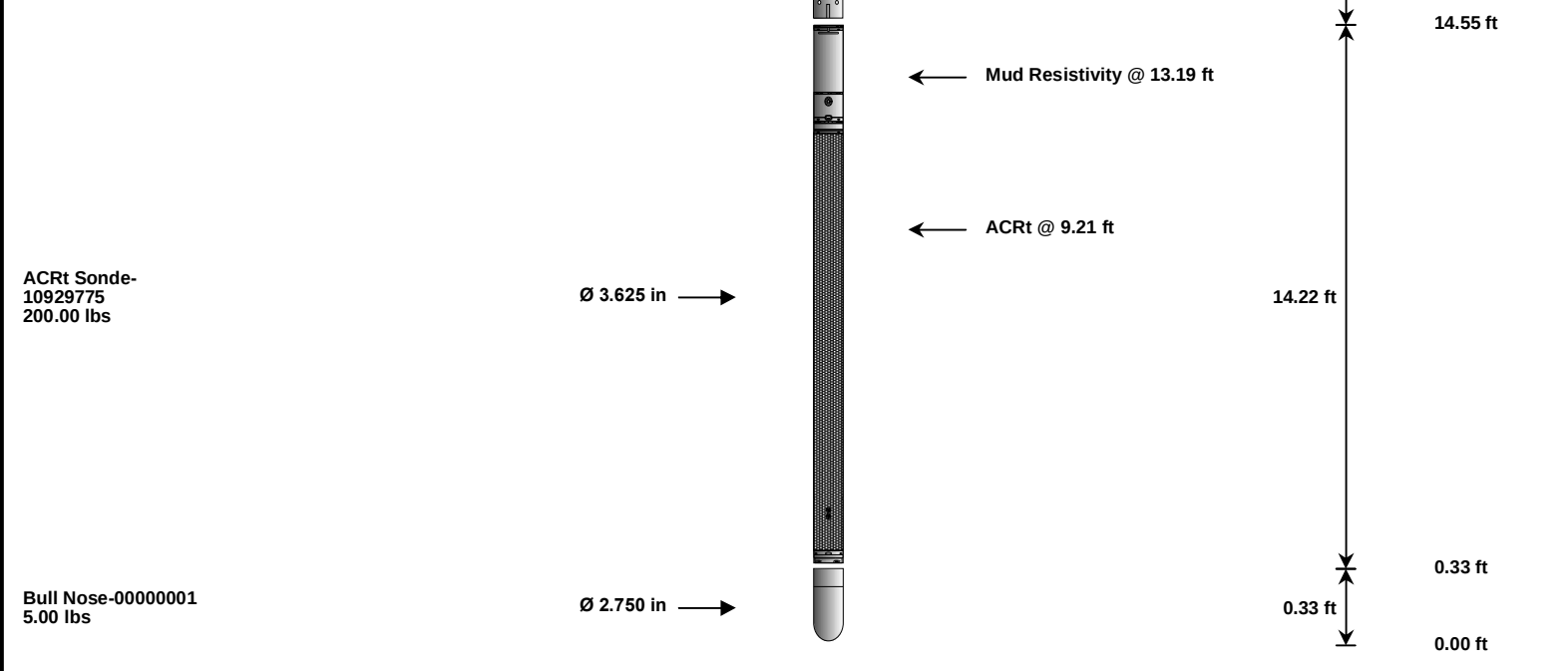
REPEAT SECTION

HALLIBURTON

TOOL STRING DIAGRAM REPORT

Description	Overbody Description	O.D.	Diagram	Sensors @ Delays	Length	Accumulated Length
CH_HOS-954 37.50 lbs		Ø 2.750 in →		← Temperature @ 76.74 ft	3.03 ft	77.77 ft
XOHD-00000001 20.00 lbs		Ø 2.750 in → Ø 3.625 in →			0.95 ft	74.74 ft
						73.79 ft
SP Sub-12345678 60.00 lbs		Ø 3.625 in →		← SP @ 72.01 ft	3.74 ft	70.05 ft





Mnemonic		Tool Name	Serial Number	Weight (lbs)	Length (ft)	Accumulated Length (ft)	Max.Log. Speed (fpm)	
CH_HOS	Hostile Cable Head with Load Cell		954	37.50	3.03	74.74	300.00	
XOHD	Hostile to Dits Cross Over		00000001	20.00	0.95	73.79	300.00	
SP	SP Sub		12345678	60.00	3.74	70.05	300.00	
GTET	Gamma Telemetry Tool		10811258	165.00	8.52	61.53	60.00	
DSNT	Dual Spaced Neutron		10755066	174.00	9.69	51.84	60.00	
DCNT	DSN Decentralizer Large Hole		00000001	6.60	9.42	*	55.17	300.00
SDLT	Spectral Density Tool		10685803	360.00	10.81	41.03	60.00	
MICP	Microlog Pad		10685803	8.00	1.00	*	43.53	60.00
SDLP	Density Insite Pad		10673790	65.00	2.55	*	43.24	60.00
IQF	IQ Flex tool		10000954	140.00	5.67	35.36	300.00	
BSAT	Borehole Sonic Array Tool		10747684	300.00	15.77	19.58	60.00	
OBCEN	Centralizer - 25 in. Overbody		00000002	8.00	2.08	*	32.51	300.00
ACRt	Array Compensated True Resistivity Instrument Section		10929776	50.00	5.03	14.55	300.00	
OBCEN	Centralizer - 25 in. Overbody		00000003	8.00	2.08	*	15.87	300.00
ACRt	Array Compensated True Resistivity Sonde Section		10929775	200.00	14.22	0.33	300.00	
BLNS	Bull Nose		00000001	5.00	0.33	0.00	300.00	
Total				1,607.10	77.77			
* Not included in Total Length and Length Accumulation.								
Data: WILLIAM_TRUST0001 SP-GTET-DSN-SDL-FLEX-BSAT-ACRT-CHIDLE								
Date: 18-Jul-13 21:45:33								

HALLIBURTON

CALIBRATION REPORT

NATURAL GAMMA RAY TOOL SHOP CALIBRATION			
Tool Name:	GTET - 10811258	Reference Calibration Date:	05-Jun-13 10:17:04
Engineer:	S. INGERSOLL	Calibration Date:	01-Jul-13 12:19:31
Software Version:	WL INSITE R3.8.4 (Build 5)	Calibration Version:	1

Calibrator Source S/N: TB-185			
Calibrator API Reference:228.00 api			
Equivalent Calibrator API Reference:232.0 api			
Measurement	Measured	Calibrated	Units
Background	35.8	34.7	api
Background + Calibrator	274.6	266.7	api
Calibrator	238.8	232.0	api

NATURAL GAMMA RAY TOOL FIELD CALIBRATION									
Tool Name:		GTET - 10811258				Reference Calibration Date:		01-Jul-13 12:19:31	
Engineer:		J. BOLLLOM				Calibration Date:		17-Jul-13 10:53:59	
Software Version:		WL INSITE R3.8.4 (Build 5)				Calibration Version:		1	
Calibrator Source S/N: TB-185									
Calibrator API Reference:228.00 api									
Equivalent Calibrator API Reference:232.0 api									
Field Verification				Shop		Field		Units	
Background				34.7		41.7		api	
Background + Calibrator				266.7		268.2		api	
Calibrator				232.0		226.6		api	
Shop		Field		Difference		Tolerance			
232.0		226.6		5.4		+/- 9.00			

ARRAY COMPENSATED TRUE RESISTIVITY SHOP CALIBRATION									
Tool Name:		ACRt Sonde - 10929775				Reference Calibration Date:		04-May-13 10:38:01	
Engineer:		J. BOLLLOM				Calibration Date:		21-Jun-13 11:07:27	
Software Version:		WL INSITE R3.8.4 (Build 5)				Calibration Version:		1	
Host Tool Name:		ACRt Instrument - 10929776							

TYPICAL GAIN RANGE									
Subarray	R12KHz			R36KHz			R72KHz		
	Lower	(mmho/m)	Upper	Lower	(mmho/m)	Upper	Lower	(mmho/m)	Upper
A1 (80")	0.95	1.02	1.05	0.95	1.02	1.05	0.95	1.01	1.05
A2 (50")	0.95	1.02	1.05	0.95	1.02	1.05	0.95	1.02	1.05
A3 (29")	0.95	1.00	1.05	0.95	1.01	1.05	0.95	1.00	1.05
A4 (17")	0.95	1.01	1.05	0.95	1.01	1.05	0.95	1.01	1.05
A5 (10")	N/A	N/A	N/A	0.95	1.02	1.05	0.95	1.02	1.05
A6 (6")	N/A	N/A	N/A	0.95	1.00	1.05	0.95	1.00	1.05

TYPICAL SONDE OFFSET RANGE									
Subarray	R12KHz			R36KHz			R72KHz		
	Lower	(mmho/m)	Upper	Lower	(mmho/m)	Upper	Lower	(mmho/m)	Upper
A1 (80")	-5	-1.85	2	-6	-4.44	-2	-8	-4.49	-2
A2 (50")	-7	-2.92	0	-7	-4.22	0	-7	-4.27	0
A3 (29")	-27	-14.77	-9	-9	-4.64	-3	-7	-2.81	-1
A4 (17")	-180	-103.87	-60	-45	-32.62	-15	-39	-25.57	-13
A5 (10")	N/A	N/A	N/A	-150	-120.52	-50	-80	-55.86	-10
A6 (6")	N/A	N/A	N/A	175	277.84	525	90	137.99	270

TRANSMITTER CURRENT GAIN				R-MUD VERIFICATION			
Signal	Lower	R	Upper	Signal	Lower (ohm-m)	Measured (ohm-m)	Upper (ohm-m)
12K	0.6	0.88	1.3	Mud Cell	0.95	0.99	1.05
36K	1.0	1.20	2.0				
72K	1.0	1.46	2.0				

PASS/FAIL SUMMARY	
GAIN RANGE CHK	PASS
SONDE OFFSET RANGE CHK	PASS

Tx CURRENT GAIN				PASS		
Rmud VERIFICATION				PASS		
TOOL OK TO LOG						
CALIBRATION SUMMARY						
Sensor	Shop	Field	Post	Difference	Tolerance	Units
GTET-10811258						
Gamma Ray Calibrator	232.0	226.6	-----	5.4	+/- 9.00	api
ACRt Sonde-10929775						
Mud Cell	0.99	-----	-----	0.00	-----	ohm-m
Data: WILLIAM_TRUST\0001 SP-GTET-DSN-SDL-FLEX-BSAT-ACRT-CHIDLE				Date: 18-Jul-13 22:17:14		
HALLIBURTON						
PARAMETERS REPORT						
Depth (ft)	Tool Name	Mnemonic	Description	Value	Units	
TOP-----	-----	-----	-----	-----	-----	
	GTET	GEOK	Process Gamma Ray EVR?	No		
	DSNT	DEOK	Process DSN EVR?	No		
	SDLT Pad	DNOK	Process Density EVR?	No		
2800.00-----	-----	-----	-----	-----	-----	
	SHARED	BS	Bit Size	7.875	in	
	SHARED	UBS	Use Bit Size instead of Caliper for all applications.	No		
	SHARED	MDBS	Mud Base	Water		
	SHARED	MDWT	Borehole Fluid Weight	9.100	ppg	
	SHARED	WAGT	Weighting Agent	Natural		
	SHARED	BSAL	Borehole salinity	0.00	ppm	
	SHARED	FSAL	Formation Salinity NaCl	0.00	ppm	
	SHARED	KPCT	Percent K in Mud by Weight?	0.00	%	
	SHARED	RMUD	Mud Resistivity	2.000	ohmm	
	SHARED	TRM	Temperature of Mud	75.0	degF	
	SHARED	CSD	Logging Interval is Cased?	No		
	SHARED	ICOD	AHV Casing OD	5.500	in	
	SHARED	ST	Surface Temperature	75.0	degF	
	SHARED	TD	Total Well Depth	3900.00	ft	
	SHARED	BHT	Bottom Hole Temperature	200.0	degF	
	SHARED	SVTM	Navigation and Survey Master Tool	NONE		
	SHARED	AZTM	High Res Z Accelerometer Master Tool	GTET		
	SHARED	TEMM	Temperature Master Tool	NONE		
	SHARED	BHSM	Borehole Size Master Tool	NONE		
	Rwa / CrossPlot	XPOK	Process Crossplot?	Yes		
	Rwa / CrossPlot	FCHO	Select Source of F	Automatic		
	Rwa / CrossPlot	AFAC	Archie A factor	0.6200		
	Rwa / CrossPlot	MFAC	Archie M factor	2.1500		
	Rwa / CrossPlot	RMFR	Rmf Reference	0.10	ohmm	
	Rwa / CrossPlot	TMFR	Rmf Ref Temp	75.00	degF	
	Rwa / CrossPlot	RWA	Resistivity of Formation Water	0.05	ohmm	

Rwa / CrossPlot	ADP	Use Air Porosity to calculate CrossplotPhi	No	
GTET	GROK	Process Gamma Ray?	Yes	
GTET	GRSO	Gamma Tool Standoff	0.000	in
GTET	GEOK	Process Gamma Ray EVR?	Yes	
GTET	TPOS	Tool Position for Gamma Ray Tools.	Eccentered	
DSNT	DNOK	Process DSN?	Yes	
DSNT	DEOK	Process DSN EVR?	Yes	
DSNT	NLIT	Neutron Lithology	Limestone	
DSNT	DNSO	DSN Standoff - 0.25 in (6.35 mm) Recommended	0.250	in
DSNT	DNTP	Temperature Correction Type	None	
DSNT	DPRS	DSN Pressure Correction Type	None	
DSNT	SHCO	View More Correction Options	No	
DSNT	UTVD	Use TVD for Gradient Corrections?	No	
DSNT	LHWT	Logging Horizontal Water Tank?	No	
SDLT	CLOK	Process Caliper Outputs?	Yes	
SDLT Pad	DNOK	Process Density?	Yes	
SDLT Pad	DNOK	Process Density EVR?	Yes	
SDLT Pad	CB	Logging Calibration Blocks?	No	
SDLT Pad	SPVT	SDLT Pad Temperature Valid?	Yes	
SDLT Pad	DTWN	Disable temperature warning	No	
SDLT Pad	DMA	Formation Density Matrix	2.710	g/cc
SDLT Pad	DFL	Formation Density Fluid	1.000	g/cc
Microlog Pad	MLOK	Process MicroLog Outputs?	Yes	
BSAT	MBOK	Compute BCAS Results?	Yes	
BSAT	FLLO	Frequency Filter Low Pass Value?	5000	Hz
BSAT	FLHI	Frequency Filter High Pass Value?	27000	Hz
BSAT	DTFL	Delta -T Fluid	189.00	uspf
BSAT	DTMT	Delta -T Matrix Type	User define	
BSAT	DTMA	Delta -T Matrix	47.60	uspf
BSAT	DTSH	Delta -T Shale	100.00	uspf
BSAT	SPEQ	Acoustic Porosity Equation	Wylie	
ACRt Sonde	RTOK	Process ACRt?	Yes	
ACRt Sonde	MNSO	Minimum Tool Standoff	1.50	in
ACRt Sonde	TCS1	Temperature Correction Source	FP Lwr & FP Up	
ACRt Sonde	TPOS	Tool Position	Free Hanging	
ACRt Sonde	RMOP	Rmud Source	Mud Cell	
ACRt Sonde	RMIN	Minimum Resistivity for MAP	0.20	ohmm
ACRt Sonde	RMIN	Maximum Resistivity for MAP	200.00	ohmm
ACRt Sonde	THQY	Threshold Quality	0.50	
ACRt Sonde	MRFX	Fixed mud resistivity	2000	ohmm
BOTTOM				
Data: WILLIAM_TRUSTI0001 SP-GTET-DSN-SDL-FLEX-BSAT-ACRT-CHIDLE			Date: 18-Jul-13 22:30:48	

HALLIBURTON				
INPUTS, DELAYS AND FILTERS TABLE				
Mnemonic	Input Description	Delay (ft)	Filter Type	Filter Length (ft)
Depth Panel				
TENS	Tension	0.00	NO	
CH_HOS				
DHTN	DownholeTension	0.00	BLK	0.000

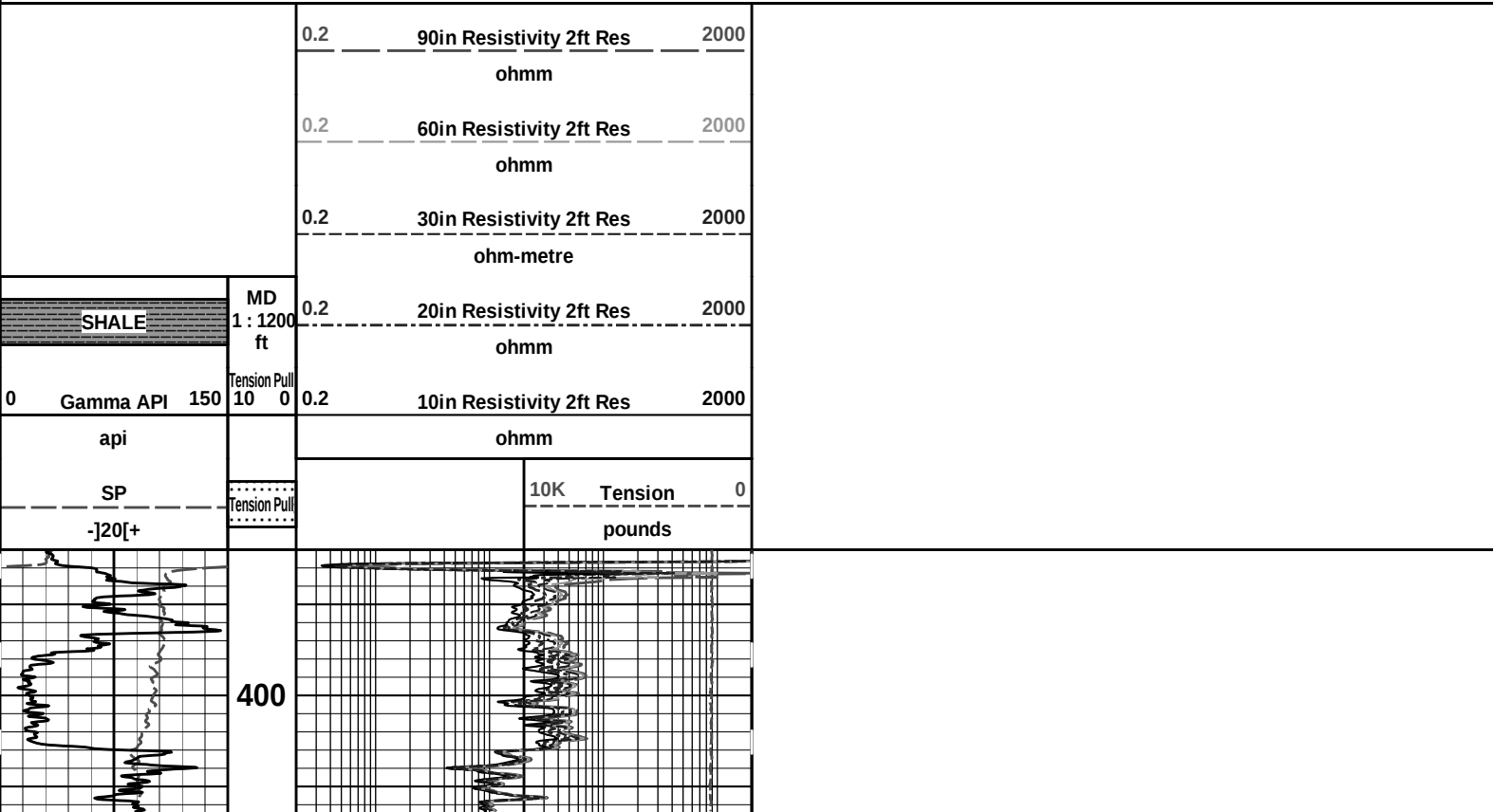
SP Sub				
PLTC	Plot Control Mask	72.01	NO	
SP	Spontaneous Potential	72.01	BLK	1.250
SPR	Raw Spontaneous Potential	72.01	NO	
SPO	Spontaneous Potential Offset	72.01	NO	
GTET				
TPUL	Tension Pull	63.99	NO	
GR	Natural Gamma Ray API	63.99	TRI	1.750
GRU	Unfiltered Natural Gamma Ray API	63.99	NO	
EGR	Natural Gamma Ray API with Enhanced Vertical Resolution	63.99	W	1.416 , 0.750
ACCZ	Accelerometer Z	0.00	BLK	0.083
DEVI	Inclination	0.00	NO	
DSNT				
TPUL	Tension Pull	53.74	NO	
RNDS	Near Detector Telemetry Counts	53.84	BLK	1.417
RFDS	Far Detector Telemetry Counts	54.59	TRI	0.583
DNTT	DSN Tool Temperature	53.84	NO	
DSNS	DSN Tool Status	53.74	NO	
ERND	Near Detector Telemetry Counts EVR	53.84	BLK	0.000
ERFD	Far Detector Telemetry Counts EVR	54.59	BLK	0.000
ENTM	DSN Tool Temperature EVR	53.84	NO	
SDLT				
TPUL	Tension Pull	43.84	NO	
PCAL	Pad Caliper	43.84	TRI	0.250
ACAL	Arm Caliper	43.84	TRI	0.250
BSAT				
TPUL	Tension Pull	26.84	NO	
STAT	Status	26.84	NO	
DLYT	Delay Time	26.84	NO	
SI	Sample Interval	26.84	NO	
TXRX	Raw Telemetry 10 Receivers	26.84	NO	
FRMC	Tool Frame Count	26.84	NO	
GMOD	Gain processing mode	19.58	NO	
ACRt Sonde				
TPUL	Tension Pull	2.73	NO	
F1R1	ACRT 12KHz - 80in R value	8.98	BLK	0.000
F1X1	ACRT 12KHz - 80in X value	8.98	BLK	0.000
F1R2	ACRT 12KHz - 50in R value	6.48	BLK	0.000
F1X2	ACRT 12KHz - 50in X value	6.48	BLK	0.000
F1R3	ACRT 12KHz - 29in R value	4.98	BLK	0.000
F1X3	ACRT 12KHz - 29in X value	4.98	BLK	0.000
F1R4	ACRT 12KHz - 17in R value	3.98	BLK	0.000
F1X4	ACRT 12KHz - 17in X value	3.98	BLK	0.000
F1R5	ACRT 12KHz - 10in R value	3.48	BLK	0.000
F1X5	ACRT 12KHz - 10in X value	3.48	BLK	0.000
F1R6	ACRT 12KHz - 6in R value	3.23	BLK	0.000
F1X6	ACRT 12KHz - 6in X value	3.23	BLK	0.000
F2R1	ACRT 36KHz - 80in R value	8.98	BLK	0.000
F2X1	ACRT 36KHz - 80in X value	8.98	BLK	0.000
F2R2	ACRT 36KHz - 50in R value	6.48	BLK	0.000

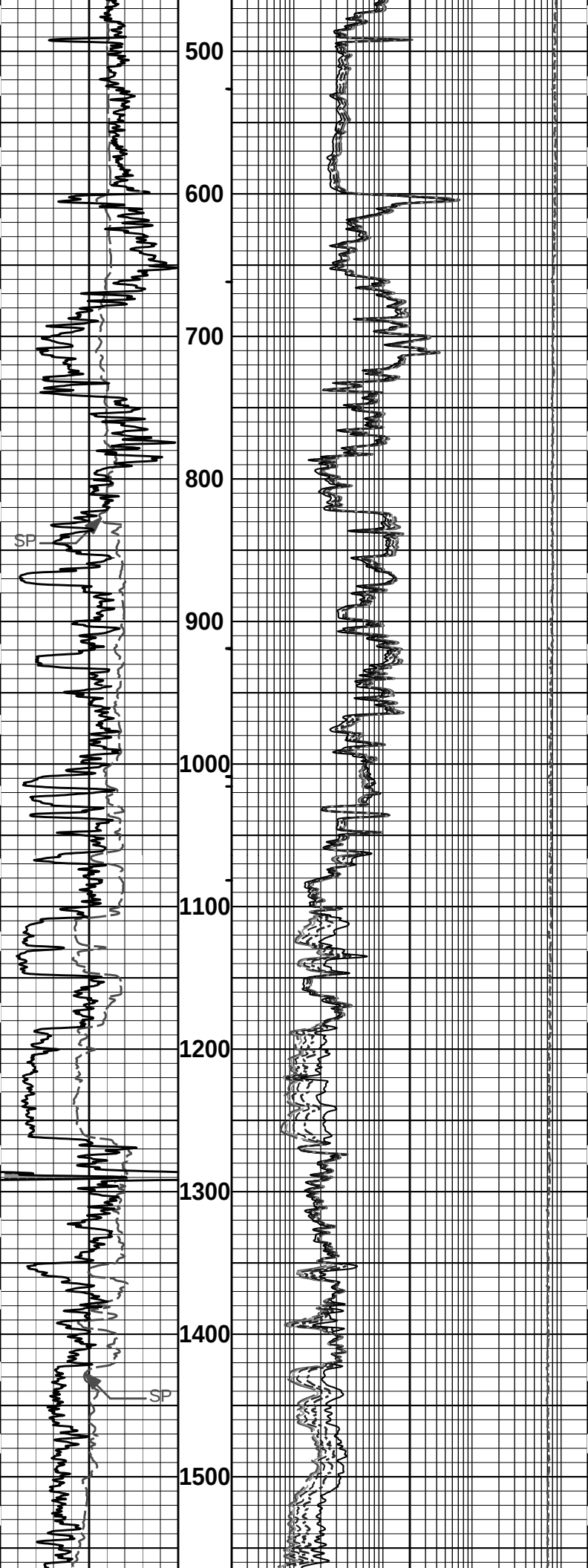
F2X2	ACRT 36KHz - 50in X value	6.48	BLK	0.000
F2R3	ACRT 36KHz - 29in R value	4.98	BLK	0.000
F2X3	ACRT 36KHz - 29in X value	4.98	BLK	0.000
F2R4	ACRT 36KHz - 17in R value	3.98	BLK	0.000
F2X4	ACRT 36KHz - 17in X value	3.98	BLK	0.000
F2R5	ACRT 36KHz - 10in R value	3.48	BLK	0.000
F2X5	ACRT 36KHz - 10in X value	3.48	BLK	0.000
F2R6	ACRT 36KHz - 6in R value	3.23	BLK	0.000
F2X6	ACRT 36KHz - 6in X value	3.23	BLK	0.000
F3R1	ACRT 72KHz - 80in R value	8.98	BLK	0.000
F3X1	ACRT 72KHz - 80in X value	8.98	BLK	0.000
F3R2	ACRT 72KHz - 50in R value	6.48	BLK	0.000
F3X2	ACRT 72KHz - 50in X value	6.48	BLK	0.000
F3R3	ACRT 72KHz - 29in R value	4.98	BLK	0.000
F3X3	ACRT 72KHz - 29in X value	4.98	BLK	0.000
F3R4	ACRT 72KHz - 17in R value	3.98	BLK	0.000
F3X4	ACRT 72KHz - 17in X value	3.98	BLK	0.000
F3R5	ACRT 72KHz - 10in R value	3.48	BLK	0.000
F3X5	ACRT 72KHz - 10in X value	3.48	BLK	0.000
F3R6	ACRT 72KHz - 6in R value	3.23	BLK	0.000
F3X6	ACRT 72KHz - 6in X value	3.23	BLK	0.000
RMUD	Mud Resistivity	12.52	BLK	0.000
F1RT	Transmitter Current Raw 12K X Receiver	2.73	BLK	0.000
F1XT	Transmitter Reference 12 KHz Imaginary Signal	2.73	BLK	0.000
F2RT	Transmitter Reference 36 KHz Real Signal	2.73	BLK	0.000
F2XT	Transmitter Reference 36 KHz Imaginary Signal	2.73	BLK	0.000
F3RT	Transmitter Reference 72 KHz Real Signal	2.73	BLK	0.000
F3XT	Transmitter Reference 72 KHz Imaginary Signal	2.73	BLK	0.000
TFPU	Upper Feedpipe Temperature Calculated	2.73	BLK	0.000
TFPL	Lower Feedpipe Temperature Calculated	2.73	BLK	0.000
ITMP	Instrument Temperature	2.73	BLK	0.000
TCVA	Temperature Correction Values Loop Off	2.73	NO	
TIDV	Instrument Temperature Derivative	2.73	NO	
TUDV	Upper Temperature Derivative	2.73	NO	
TLDV	Lower Temperature Derivative	2.73	NO	
TRBD	Receiver Board Temperature	2.73	NO	
SDLT Pad				
TPUL	Tension Pull	43.83	NO	
NAB	Near Above	43.66	BLK	0.920
NHI	Near Cesium High	43.66	BLK	0.920
NLO	Near Cesium Low	43.66	BLK	0.920
NVA	Near Valley	43.66	BLK	0.920
NBA	Near Barite	43.66	BLK	0.920
NDE	Near Density	43.66	BLK	0.920
NPK	Near Peak	43.66	BLK	0.920
NLI	Near Lithology	43.66	BLK	0.920
NBAU	Near Barite Unfiltered	43.66	BLK	0.250
NLIU	Near Lithology Unfiltered	43.66	BLK	0.250
FAB	Far Above	44.01	BLK	0.250
FHI	Far Cesium High	44.01	BLK	0.250
FLO	Far Cesium Low	44.01	BLK	0.250
FVA	Far Valley	44.01	BLK	0.250
FBA	Far Barite	44.01	BLK	0.250
FDE	Far Density	44.01	BLK	0.250

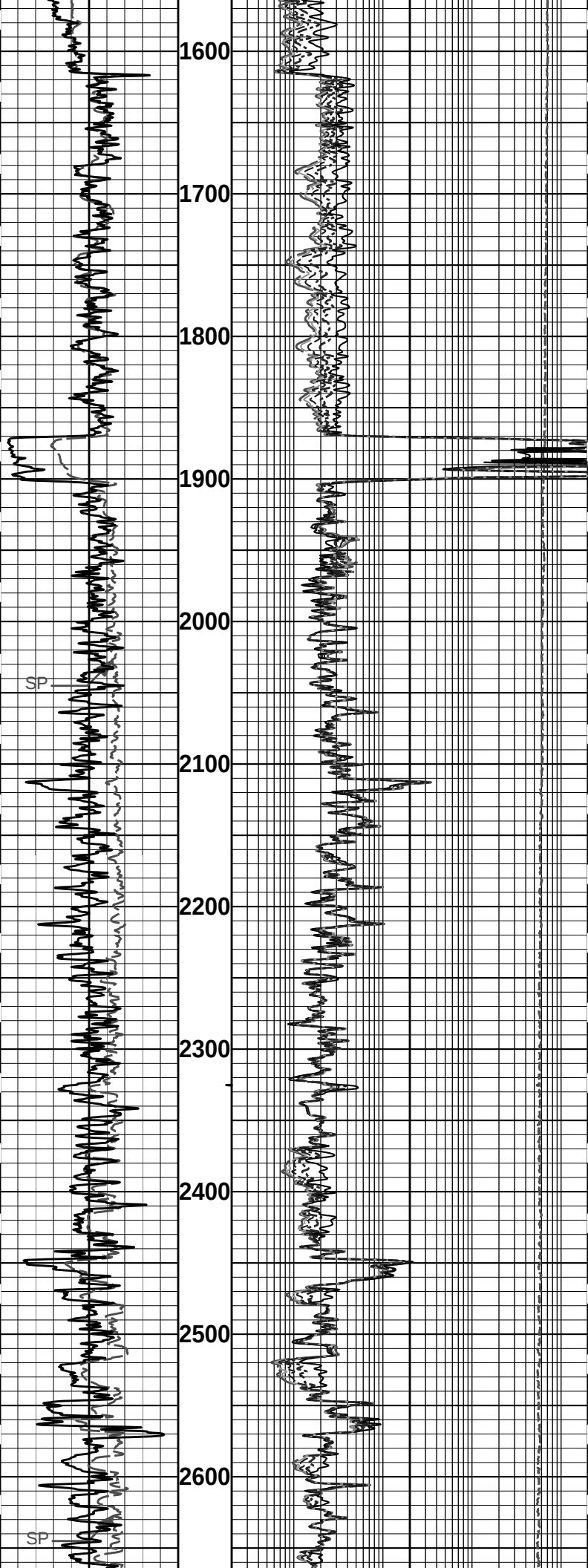
FPK	Far Peak	44.01	BLK	0.250
FLI	Far Lithology	44.01	BLK	0.250
PTMP	Pad Temperature	43.84	BLK	0.920
NHV	Near Detector High Voltage	43.24	NO	
FHV	Far Detector High Voltage	43.24	NO	
ITMP	Instrument Temperature	43.24	NO	
DDHV	Detector High Voltage	43.24	NO	
Microlog Pad				
TPUL	Tension Pull	44.03	NO	
MINV	Microlog Lateral	44.03	BLK	0.750
MNOR	Microlog Normal	44.03	BLK	0.750
Data: WILLIAM_TRUST\0001 SP-GTET-DSN-SDL-FLEX-BSAT-ACRT-CHIDLE			Date: 18-Jul-13 21:56:01	

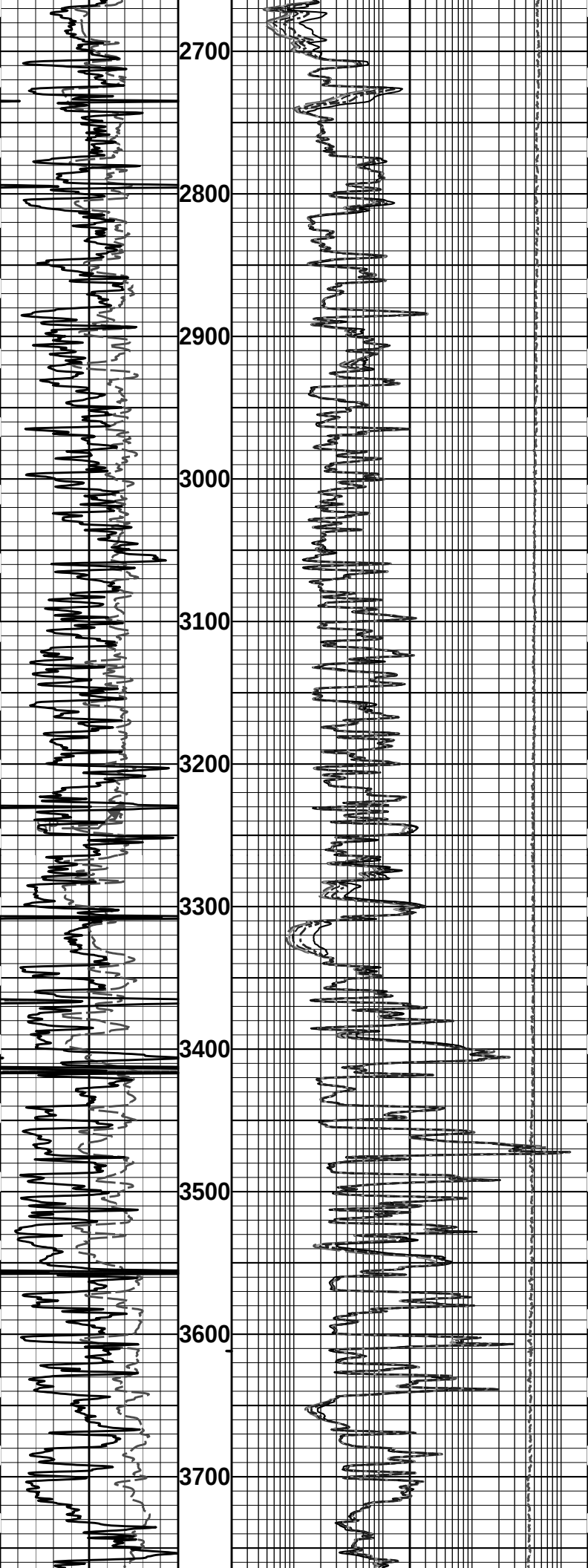
COMPANY	HARTMAN OIL CO.		
WELL	WILLIAMS TRUST 1-19		
FIELD	WILDCAT		
COUNTY	NORTON	STATE	KANSAS
HALLIBURTON		ARRAY OCMPEsnated TRUE RESISTIVITY LOG	

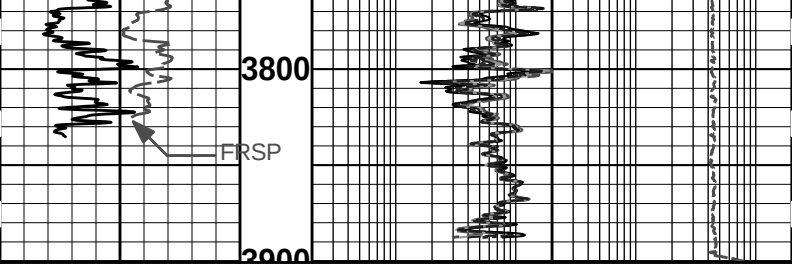
HALLIBURTON	Plot Time: 19-Jul-13 00:39:00 Plot Range: 320 ft to 3900.75 ft Data: WILLIAM_TRUST\Well Based\CASING\ Plot File: \\-LOCAL-WILLIAM_TRUST\0001 SP-GTET-DSN-SDL-FLEX-BSAT-ACRT-CH\ACRT\ACRT_1_main_lib
5 INCH MAIN LOG	











SP		Tension Pull		10K Tension 0	
-]20[+				pounds	
0	Gamma API	150	10	0	0.2
api		MD		10in Resistivity 2ft Res	
SHALE		1 : 1200 ft		2000	
				ohmm	
				0.2 20in Resistivity 2ft Res 2000	
				ohmm	
				0.2 30in Resistivity 2ft Res 2000	
				ohm-metre	
				0.2 60in Resistivity 2ft Res 2000	
				ohmm	
				0.2 90in Resistivity 2ft Res 2000	
				ohmm	

HALLIBURTON

Plot Time: 19-Jul-13 00:39:16
 Plot Range: 320 ft to 3900.75 ft
 Data: WILLIAM_TRUST\Well Based\CASING\
 Plot File: \\-LOCAL-WILLIAM_TRUST\0001 SP-GTET-DSN-SDL-FLEX-BSAT-ACRT-CH\ACRT\ACRT_1_main_lib

5 INCH MAIN LOG